

UNITED STATES DISTRICT COURT

DISTRICT OF COLUMBIA

INTEX RECREATION CORP.,

Plaintiff/Counterclaim-
Defendant,

v.

TEAM WORLDWIDE CORPORATION,

Defendant/Counterclaim-
Plaintiff.

v.

INTEX RECREATION CORP.,

Counterclaim Defendant

) CASE NO. 1:04 CV 01785

)

) **EXPERT REPORT OF JOHN F.**
) **BERNINGER**

)

) Judge: Paul L. Friedman

)

) Magistrate Judge Deborah A. Robinson

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)

)

Expert Report of John F. Berninger

I, John F. Berninger declare as follows:

I. BACKGROUND

A. Engagement

1) I have been retained by the plaintiff in *Intex Recreation Corp. vs Team Worldwide Corp. vs Intex Recreation Corp.*, Civil Action No. 1:04 CV 01785. I have been requested by the plaintiff's council to prepare certain opinions and to prepare a report regarding those opinions in connection with this civil action.

B. Personal Credentials

- 2) My current resume is provided as Exhibit 1.
- 3) I am a registered professional engineer in the states of Michigan and Illinois. I have a BS and an MS in Mechanical Engineering, both from Illinois Institute of Technology.
- 4) My career with Parker Hannifin Corp. included 38 years of design work on hydraulic and pneumatic components, and I received 5 patents during that time.
- 5) I was the engineering manager for the Pneumatic division of Parker Hannifin for 20 years. I was the Global Engineering manager for corporate pneumatic products for the 6 years before retirement in 2002.

- 6) During my career I received 6 technical authorship awards for published papers that I wrote.
- 7) One of my responsibilities was to serve as the expert witness for product liability cases for the Pneumatic division, and I was deposed about 10 times. Also, I testified at trial once in that regard.
- 8) Continuously since about 1967, I have been active in standards development for the fluid power industry, both at the national and international level.
- 9) I am currently the chair of the International Organization for Standardization ("ISO") Committee TC 131, the ISO technical committee for fluid power.
- 10) I have received approximately 12 awards for authoring standards that have been approved, many of them American National Standards. I currently serve on the ANSI board of standards review.
- 11) In the past ten years I have published the following articles:
"Developing reliability standards – An overview perspective", NFPA Reporter, March/April 1995;
"Comparing ISO Sonic Flow to ANSI C_v", Proceedings of the 49th National Conference on Fluid Power, 2002;
"Reliability of fluid power products", ISO Focus, Mar. 2004; and

“The initiative to Measure Reliability of Fluid Power Products”,
Proceedings of the 50th National Conference on Fluid Power, 2005.

12) In the past four years I have been deposed twice, in
Reifsteck vs Northwest Steel & Wire, et al – Dec. 2003, and in
Norquist vs Conbraco, et al – May 2005.

13) I am being compensated at my normal rate of \$170/hr.

II. OPINIONS REQUESTED AND SUMMARY OPINIONS

14) I have been asked to opine on the level of skill possessed by a
person of ordinary skill in the field of the invention of United States
Patent 6,793,469 (“the ‘469 patent”).

15) I have been asked to opine on whether any of claims 14-17 of
the ‘469 patent is invalid as anticipated by or obvious from the prior art.

16) In my opinion claim 14 of the ‘469 patent is invalid as
anticipated by United States Patent 5,503,618 (“the ‘618 patent”);
anticipated by United States Patent 6,312,400 (“the ‘400 patent”); and
obvious from United States Patent 5,367,726 (“the ‘726 patent”).

III. DATA, INFORMATION AND LEGAL PRINCIPLES CONSIDERED IN FORMING MY OPINIONS

17) In the course of preparing my opinions I have reviewed the
following materials: (a) Expert Report of Dr. Steven Dubowsky; (b) the

'469 patent; (c) the '618 patent; (d) the '400 patent; and, (e) the '726 patent.

18) I am not an attorney and I will not offer opinions on the law. I have been, however, informed of several principles concerning patent claim construction and infringement which I have used in arriving at my opinion in this report.

19) Only the claims of a patent can be infringed.

20) The claims of a patent define the invention to which the patentee is entitled the right to exclude others from using.

21) A patent claim is invalid as anticipated if each and every limitation of the claim is found literally or inherently in a single prior art reference.

22) A patent claim is invalid as obvious if at the time of the invention the claimed subject matter would have been obvious to a person of ordinary skill in the art.

23) If a person of ordinary skill in the art at the time of the invention would have been motivated to combine the teachings of two or more prior art references to form the claimed invention, the claimed invention is invalid for obviousness.

24) For this report, I used as the basis for my opinions on validity the meaning of the term "socket" given by Dr. Steven Dubowsky, the patentee's expert, i.e., "an opening or hollow that forms a holder for something." I strongly disagree, however, with the meaning given to this claim term by Dr. Dubowsky. In my rebuttal expert report regarding the issue of infringement, I will provide the meaning of the term socket, as used in claims 14-17 of the '469 patent.

IV. OPINIONS AND BASIS AND REASONS THEREFOR

25) In my opinion, a person of ordinary skill in the field of technology of the '469 patent would hold a bachelor's degree in mechanical engineering from a recognized school plus about ten year's of experience in a combination of plastic mold design, manufacturing processes, pneumatic principles, electric motor selection, basic electric circuit design and a general knowledge of the competitive products.

26) I have been presented with a copy of the '618 patent and informed that it is a prior art reference that may be considered in forming an opinion on whether any claim of the '469 patent is anticipated.

27) In my opinion Claim 14 of the '469 patent is anticipated by the pillow described in the '618 patent.

28) Claim 14 of the '469 patent requires an inflatable product that includes an inflatable body. The '618 patent has this limitation because it is directed to a sealed, hollow cushion that is pressurized with water through use of an electric pump held in a socket. With reference to Figures 1, 2 and 6 the cushion 12 is filled with water 14. The cushion 12 is an "inflatable plastic bag 20". ['618 patent at 2:54-3:2].

29) Claim 14 requires the inflatable product to also include a socket built in the inflatable body. With reference particularly to Figure 5, the '618 patent has a socket shown at reference numerals 38 and 40. In the '618 patent the structures 38 and 40 are referred to as a "sleeve 38" and a "side opening 40". However, these structures are a "socket" as claimed, assuming Dr. Dubowsky's definition is used, because these structures form an opening or hollow in the inflatable body that forms a holder for the heater-pump 34. ['618 patent at 3:20-33].

30) Claim 14 also requires the inflatable product to include an electric pump, including a pump body and an air outlet, connected to the socket to pump the inflatable body, wherein the pump body is wholly or partially located in the socket. The '618 patent has this structure. Specifically, the heater-pump 34 discharges into the pipes 30 and jets 32. The heater-pump 34, the pipes 30 and the jets 32 are connected to the

socket to pump the inflatable body. The pump 34 is wholly or partially located in the socket. I recognize that the '469 patent claim includes the word "air"; however, the claim is directed to an inflatable product and the pillow of the '618 patent could also be used with air if an air pump replaced the water heater-pump 34. The outlet of the pump 34 would be an air outlet if that pillow were used with air, and a water outlet if used with water.

31) Claim 14 of the '469 patent also requires the inflatable product to include a connector on the electric pump for connecting external power to actuate the electric pump. The heater-pump 34 of the '618 patent has such a connector. With reference to Figure 1, a power source can be provided with an electric cord 60 connecting to an electrical socket 64 on the housing 42 to operate the heater-pump 34. ['618 patent at 3:41-49].

32) For the above reasons, it is my opinion that each and every limitation of claim 14 is found in the inflatable pillow product described in the '618 patent.

33) I have been presented with a copy of United States Patent 6,321,400 ("the '400 patent") and informed that it is a prior art reference

that may be considered in forming an opinion on whether any claim of the '469 patent is anticipated.

34) In my opinion Claim 14 of the '469 patent is anticipated by the pillow described in the '400 patent.

35) Claim 14 of the '469 patent requires an inflatable product that includes an inflatable body. The '400 patent has this limitation because it is directed to an inflatable mattress and pillow for a sleeping bag assembly, including a self contained powered air inflation device that is held in a socket. With reference to Figures 1 and 5 the sleeping bag assembly 20 has several air mattress and pillow portions that define pneumatic chambers 31a, 31b, 32a and 32b. ['400 patent at 3:32-57].

36) Claim 14 requires the inflatable product to also include a socket built in the inflatable body. The '400 patent has "included in an interior pocket an inflation device." ['400 patent at 2:37-38]. With reference particularly to Figures 1 and 2, the '400 patent has a socket referred to and illustrated as storage pocket 36, located "in the side section 34 of the first air mattress 21a" (should be 22a). ['400 patent at 4:28-32]. In the '400 patent the storage pocket 36 would be a "socket" as claimed, assuming Dr. Dubowsky's definition is used, because this structure forms

an opening or hollow that forms a holder for the portable air inflation device 39. ['400 patent at 4:32-36].

37) Claim 14 also requires the inflatable product to include an electric pump, including a pump body and an air outlet, connected to the socket to pump the inflatable body, wherein the pump body is wholly or partially located in the socket. The '400 patent has this structure. Specifically, the air inflation device 39 is an electric pump that has air intake opening 52 and impeller blades 47 and discharges into the pneumatic chambers via the air tube 55 from an air outlet or exhaust vent 54 (misabeled as "34" in Figure 5). ['400 patent at 5:2-11]. The pump (inflation device) 39 is wholly or partially located in the socket (storage pocket) 36.

38) Claim 14 of the '469 patent also requires the inflatable product to include a connector on the electric pump for connecting external power to actuate the electric pump. The pump (inflation device) 39 of the '400 patent has such a connector. With reference to Figure 5, it is shown that the pump can be powered by either batteries 51, 51 or through the included "electrical cord 58". ['400 patent at 4:33-38; 50-59].

39) For the above reasons, it is my opinion that each and every limitation of claim 14 is found in the inflatable product described in the '400 patent.

40) I have been presented with a copy of United States Patent 5,367,726 ("the '726 patent") and informed that it is a prior art reference that may be considered in forming an opinion on whether any claim of the '469 patent would have been obvious to a person of ordinary skill in the art at the time of the invention.

41) In my opinion Claim 14 of the '469 patent is anticipated by the air mattress described in the '726 patent.

42) Claim 14 of the '469 patent requires an inflatable product that includes an inflatable body. The '726 patent has this limitation because it is directed to an inflatable mattress, including a self contained powered air inflation device that is held in a socket. With reference to Figure 1 the air mattress 10 defines an inflatable body. ['726 patent at 2:7-10].

43) Claim 14 requires the inflatable product to also include a socket built in the inflatable body. The '726 patent has a dual air valve assembly 12 included in a socket located in the inflatable body ['726 patent Figure 2]. With reference particularly to Figures 1 and 2, the '726 patent has a "socket" as claimed, assuming Dr. Dubowsky's definition is

used, because this structure forms an opening or hollow that forms a housing for the dual valve assembly 12. ['726 patent at 2:24-28].

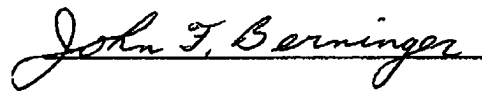
44) Claim 14 also requires the inflatable product to include an electric pump, including a pump body and an air outlet, connected to the socket to pump the inflatable body, wherein the pump body is wholly or partially located in the socket. The '726 patent has portions of this structure. Specifically, the air inflation device 20 is an electric pump that has air inlet 281 and an impeller 21 which discharges into an air outlet (inflation input 322 of Figure 3). ['726 patent at 2:25-33 and 3:66-4:4].

Although the electric pump (inflation device) 20 is not wholly or partially located in the socket, one skilled in the art would have been motivated to so locate the pump for reasons explained in the '726 patent at [7:5-19]. It is my opinion that this language in the patent provides motivation to have placed the pump inside of the socket to avoid having to remove and replace the pump for inflation and deflation operations, and thus repeated removal of the fitted bedsheets. It is also my opinion that a person of ordinary skill not only would have been motivated to make such a modification, but could have readily designed such a modification. That modification would have been a deeper socket that would wholly or partially contain the electric pump.

45) Claim 14 of the '469 patent also requires the inflatable product to include a connector on the electric pump for connecting external power to actuate the electric pump. The pump (inflation device) 20 of the '726 patent has such a connector. With reference to Figure 2, it is shown that the pump can be powered by batteries 22a, 22b with a rechargeable connector (recharging input 29) ['726 patent at 2:28-29 and 2:47-51]. One skilled in the art can readily convert this to an electric motor powered by a commonly available supply using an appropriate connector. Another embodiment of the '726 patent actually demonstrates this in Figure 5; and, again, one skilled in the art can design the pump-motor combination to be wholly or partially located in the socket.

46) For the above reasons, it is my opinion that the teachings of the 726 patent would have rendered each and every limitation of claim 14 obvious to a person of ordinary skill in the art at the time of the '469 patented invention.

July 21, 2006

A handwritten signature in cursive script that reads "John F. Berninger". The signature is written in dark ink and is positioned above the printed name.

John F. Berninger

Exhibit 1

CURRICULUM VITAE OF JOHN F. BERNINGER

Jan. 1, 2006

Principal of:

Advanced Analysis Engineering 3755 Shade Tree
Portage, Michigan 49024-1 036
Phone: (269) 323-1882
Fax: (269) 323-1891
email: jberninger@aaeconsult.com

Expert in the area of Fluid Power products (Hydraulic and Pneumatic); their design and application.

Served as an expert witness and/or technical advisor in previous litigation involving fluid pressurization issues: design selection of components for pressurized systems, operation of fluid power systems, analysis and testing of hydraulic and pneumatic components.

Bachelor of Science in Mechanical Engineering
June 1958 Illinois Institute of Technology; Chicago

Master of Science in Mechanical Engineering
January 1966 Illinois Institute of Technology; Chicago

Registered Professional Engineer Illinois, Michigan

Certified Fluid Power Engineer by the Fluid Power Society

Diplomate of the American Board of Forensic Examiners

National fluid Power Association

Chairman (1987-Current) of the Pressure Rating Technology Committee of the National Fluid Power Association, the association for manufacturers of fluid power products (valves, pumps, connectors, cylinders, filters, regulators and other components and systems). Developed the standard for verifying the pressure ratings of fluid power products, including theoretical basis.

Co-chair (2000 — Current) of the Reliability project group to develop standards for measuring reliability of fluid power components by test methods.

Was Chairman of several National Fluid Power Association project groups that developed the following standards:

- Accumulator Pressure Rating
- Cylinder Pressure Rating
- Regulator Performance Testing
- Air Valve Pressure Rating
- Response Time Test Method for Air Valves
- Pneumatic Systems (JIC)

Served 6 years in officer positions of the Technical Board, including Chairman (1991 -1993).

Other Professional Associations

ISO (International Organization for Standards)

- USA delegate to several committees for fluid power products (1982 — Current).

- Convenor (1989-Current) of Air Valve working group ISO TC 131/SC5/WG3.

- Chairman (2003— current) of the entire ISO TC 131 committee for Fluid Power.

ANSI (American National Standards Institute)

- Chairman (1996-2002) of the USA Technical Advisory Group on fluid power products.

- Member (2004-current) of the Board of Standards Review.

ASME (American Society of Mechanical Engineers) — Member since 1958.

EMPLOYMENT HISTORY

Sept. 2002 to-date - Principal of Advanced Analysis Engineering; Portage, Michigan.

Expert witness in product liability cases. Participant and chair of several NFPA and ISO standards developing committees.

Consultant to the Korean Institute of Machinery and Materials Reliability Center.

March 1996 to Sept. 2002 - Global Engineering Support Manager for the Automation Group of Parker Hannifin Corporation; Richland, Michigan.

Coordinated the development of Global pneumatic products at the several divisions of the corporation in Europe, Brazil, Korea and the USA. Participated in industry standards development for fluid power products, nationally and

internationally, including executive functions. Was the expert for the Pneumatic Division North America in product liability litigation.

July 1987 to March 1996 - Manager of Engineering for Schrader Bellows
Pneumatic Division of Parker Hannifin Corporation;
Otsego, Michigan.

Responsible for two engineering departments, one in Michigan and one in North Carolina. Managed new product development and product improvements on air valves and air preparation units (filters, regulators and lubricators-FRLs). Had 2 patents granted: one for a small poppet valve and one for a lockout valve. Had management responsibility for computer-assisted design operations, model shops and laboratories. Other responsibilities included budgets, project plans, design approvals, and coordination with international operations. Was the expert for the division in product liability litigation.

Sept. 1975 to June 1987 - Manager of Engineering for the Pneumatic Division of
Parker Hannifin Corporation; Otsego, Michigan.

Supervised development and improvement of air valves, solenoids, air regulators, air filters and other products. Used die castings, plastic moldings and metal machining for manufacturing methods. Organized laboratory programs for developing reliability testing and application analysis. Was the expert for the division in product liability litigation.

October 1966 to September 1975 - Employed by the Cylinder division of Parker
Hannifin Corporation; Des Plaines, Illinois.

Was a Project Engineer (1 year), Chief Test Engineer (5 years) and Chief Engineer in charge of special product design (3 years). Conducted test programs on metal fatigue, material wear and seal leakage. Designed test equipment for these programs including hydraulic, pneumatic and electric circuits. Designed hydraulic cylinders with low deceleration cushions for foundries offshore drill rigs, and test installations. Calculated column buckling problems and performed stress analysis. Made frequent trips to customers to evaluate applications. Have had articles published in several magazines, and one section of a textbook.

June to September 1966 - Employed by the Powers Regulator Company; Skokie, Illinois as a Research Engineer on fluidic devices and logic systems.

September 1963 to June 1966 - Aerospace Project Engineer with General American Transportation Corporation; Niles Illinois Developed the vacuum cleaner for the Apollo spacecraft, and a water recovery machine used to convert waste body fluid to potable water (ground study for extended space mission).

March 1960 to September 1963 - Design engineer for the Cylinder Division, Parker Hannifin Corporation; Des Plaines, Illinois. Had three patents granted; one for a concentric baffle in an air-oil tank, one for a hydraulic limit switch actuator and one for an impact absorbing bumper. Designed many springs.

June 1958 to March 1960 - Employed by Nordberg Manufacturing Company; Milwaukee, Wisconsin as a designer on large stationary diesel engines.

Prior to June 1958 - Full time college student.

Publications

1. "Extrusion of Static Seals", Proceedings of the National Conference on Fluid Power, 1972.
2. "Stress Analysis of Tie Rods in Cylinders", Proceedings of the National Conference on Fluid Power, 1975. (This was used in the book, Fluid Power Design Handbook, 2nd ed. by Frank Yeaple, pages 111-121; published by Marcel Dekker, 1990.)
3. "Air Valve Subbase Eliminates Costly Piping", Machine Design, Sept. 24, 1981.
4. "Trouble Shooting the Compressed Air System", Hydraulics & Pneumatics. Sept. 1984.
5. "Basis of Pressure Rating", Proceedings of the 43rd National Conference on Fluid Power, 1988.
6. "Reliability of Pneumatic Products", Proceedings of the 44th National Conference on Fluid Power, 1990.
7. "Product Reliability — What is it?", Pneumatic Notes in Hydraulics & Pneumatics, Dec. 1990.
8. "Why Standardize?", editorial in NFPA Reporter, May/June 1992.
9. "Developing reliability standards — An overall perspective", NFPA Reporter, March/April 1995.
10. "Comparing ISO Sonic Flow to ANSI C_v ", Proceedings of the 49th National Conference on Fluid Power. 2002.

11. "Reliability of fluid power products", ISO Focus, Mar. 2004.
12. "The Initiative to Measure Reliability of Fluid Power Products",
Proceedings of the 50th National Conference on Fluid Power, 2005.

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CASE NO. 1:04 CV 01785

Judge: Paul L. Friedman

Magistrate Judge Deborah A. Robinson

NOTICE OF SERVICE

Pursuant to Rule 26(e) of the Federal Rules of Civil Procedure, Intex Recreation Corp. ("Intex"), through counsel, hereby serve the attached Supplemental Report and Designation of John F. Berninger on counsel for Team Worldwide Corporation.

Respectfully submitted,

Counsel for Plaintiff Intex Recreation Corp.


Gerald F. Ivey (#367009)

Kara F. Stoll (#471166)

Edward J. Naidich (#481649)

John M. Williamson (#472713)

Christopher W. Day (#474935)

FINNEGAN, HENDERSON, FARABOW,

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901 New York Avenue, N.W.

Washington, DC 20001

(202) 408-4000

February 16, 2007

CERTIFICATE OF SERVICE

I hereby certify that on February 16, 2007, a copy of the foregoing SUPPLEMENTAL REPORT AND DESIGNATION OF JOHN F. BERNINGER was served via facsimile and Federal Express on the following counsel:

Kurt L. Glitzenstein, Esq.
Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110

Shari F. Esfahani, Esq.
Fish & Richardson P.C.
1425 K Street, N.W., Suite 1100
Washington, DC 20005



Roxanna M. Dillon

SUPPLEMENTAL REPORT AND DESIGNATION OF JOHN F. BERNINGER

I have been asked by Intex's new attorneys to review certain materials contained in the record and in more recently produced supplemental responses by TWW, and to state briefly my opinions regarding what the '469 patent actually discloses to a person of skill in the art and to clarify my opinions as to (1) why Intex's accused products do not infringe the '469 patent, and (2) why certain claims of the '469 patent itself are not valid over the prior art. To clarify my anticipated testimony and remove any reasonable cause for uncertainty,¹ here are my opinions:

1. The claim term "pump body" refers to "a housing that surrounds the other components of the pump." The '469 patent claims were amended to specifically require "an electric pump, including a pump body and air outlet." From the standpoint of a person of ordinary skill in the art, the word "including" means that the "pump body" is a component of the "electric pump." The word "body" refers to a housing that surrounds the other components of the pump. The claim language thus would lead the reader to understand that "pump body" refers to a housing that surrounds the other components of the pump.² This construction is consistent with the '469 patent specification and prosecution history,³ and the appropriate extrinsic record.⁴

¹ For instance, in his Second Declaration dated November 10, 2006, Dr. Dubowski contends that it is "unclear" what was meant as to the proper understanding of certain claim terms in the '469 patent. My explanation is from the standpoint of a person of ordinary skill in the art, reading the patent to discern what is publicly disclosed as the claim limits of the alleged invention.

² In the context of the '469 patent, the body of the pump 20 (Fig. 2) forms a pressure containing envelope for holding pressurized air created by the pump 20 before it enters the inflatable body 26.

³ See, e.g., '469 patent at Figs. 2-3A (depicting a "detachable electric pump 20" that includes a body that surrounds the internal components of the pump 20 and is partially located in a socket 24); '469 Prosecution History, Amendment dated July 11, 2003 at page 6 (using the phrase "(i.e., pump body)" to describe an "inflator housing 2" in the prior art where the pump body surrounds the internal components of the pump).

⁴ I disagree with TWW's attempt to support its proposed construction by selecting overly broad and inaccurate dictionary definitions in the context of the '469 patent. One of ordinary skill in the art would have no motivation to seek out TWW's extrinsic references while disregarding what the '469 patent specification and prosecution history actually teach.

2. The claim term “socket” refers to “a structure that fits and holds onto an inserted part so that the structure and the part are detachably connected to each other.” The claimed “socket” element thus requires a distinct structure that holds a detachable pump. This is the only construction that is consistent with the specification and prosecution history of the ‘469 patent.

3. I understand that there has been a suggestion that my definition of “socket” from my Rebuttal Report is at odds with the definition provided by William F. Smith of Intex during his deposition. I disagree. For a person of ordinary skill in the art,⁵ the ‘469 patent specification and prosecution history call for a socket that receives and holds onto a pump. In the context of the ‘469 patent, the pump and socket are detachably connected to each other, much like a light socket fits and holds onto an inserted light bulb.⁶

4. Under TWW’s inaccurate and unsubstantiated definition of a socket almost anything can be a socket—the housing of an AC electric powered clock, a TV set’s housing, etc., would all qualify as a socket because they all constitute “an opening or hollow that forms a holder for something.” But, from the perspective of the engineer of ordinary skill in the art reading the ‘469 patent, the actual disclosure and intrinsic teachings establish the context for what constitutes a socket in the ‘469 patent.⁷

⁵ From his deposition testimony, it is my opinion that Mr. Smith’s experience with the products at issue demonstrates a requisite level of “ordinary” skill in the art.

⁶ Each of the seven pump and socket embodiments of the ‘469 patent includes a socket that holds onto a pump through the use of threading, interlocking flanges and/or grooves. Likewise, the language used to describe each of these embodiments makes clear that the pump must be “fitted into,” “fitted in,” “put in,” or “screwed together” with the socket. *See, e.g.*, ‘469 patent at col. 2, ll. 66-67, col. 3, l. 46, col. 4, l. 44, and col. 6, l. 17.

⁷ A “housing” or “chamber,” as in Figs. 13A-15 of the ‘469 patent, is distinguished from a “socket,” as in Figs. 2-12 of the ‘469 patent. Unlike the socket embodiments, none of the housing embodiments provide a detachable connection with a pump. These terms are never used or illustrated interchangeably.

5. The claim term "electric pump" refers to an electrically powered device that is made up of components,⁸ which cooperate together to inflate or deflate an inflatable body.

6. With respect to my infringement analyses, none of the accused Intex products include the following elements of the '469 patent claims 14 and 16: (1) "socket built in the inflatable body;" (2) "pump, including a pump body and an air outlet, connected to the socket;" and (3) "wherein the pump body is wholly or partially located in the socket."⁹ Instead, the accused products include an integral pump unit consisting of specific components,¹⁰ which are installed in a permanent housing.¹¹ The accused products thus do not infringe the '469 patent.

7. With respect to my validity analyses, I have been asked to review and consider what reasonable conclusions would be drawn by a person of ordinary skill in the art in reading four prior art references (i.e., U.S. Patent Nos. 6,722,306 ("Wang"), 6,237,653 ("Chaffee"), 6,315,526 ("Jones"), and 5,606,756 ("Price")) and comparing the features disclosed in each of these reference to the elements of claims 14 and 16 of the '469 patent.¹²

⁸ For instance, these components include a pump body, which forms a pressure containing envelope for holding pressurized air, an electric motor, and an impeller and its casing.

⁹ In other words, the accused products are missing a distinct "socket" structure that fits and holds onto a detachable pump, which includes a pump body. Nor do the accused products include the pump body "received in the socket . . . in a second direction for deflating the inflatable body" element required by the '469 patent claims 15 and 17. By contrast, the pump body in the accused products remains permanently mounted in the same orientation regardless of whether the inflatable body is inflated or deflated. The structure and operation of the accused products (i.e., rotation of a part of a unit to deflate or inflate the inflatable body) are substantially different from the features required by the claims.

¹⁰ These permanently mounted components include a pump body, which forms a pressurized chamber, an electric motor, and an impeller and its casing.

¹¹ In my opinion, the illustrations relied upon by TWW's witness are misleading in so far as they have been used to argue that the components of the accused Intex products are intended to be, or are, capable of disassembly in normal operation, or by consumers.

¹² I have been asked to consider this question from the perspective of a person possessing the level of ordinary skill in the art at the time the alleged invention was made. In considering this questions, I have evaluated the scope and content of the prior art references, each taken either alone or in combination; and the differences, if any, between the invention of the claim and the prior art. I further
(continued on next page)

8. The '469 patent claims 14 and 16 are invalid as being anticipated by and/or obvious in light of Wang. As shown in Fig. 4A, Wang discloses an inflatable body 301, a socket 305 (referred to as a "deflation valve")¹³ built in the inflatable body 301, an electric pump 14 (referred to as an "electric dryer") having a pump body, and a pump power connector cord.

9. The '469 patent claims 14 and 16 are invalid as being anticipated by and/or obvious in light of Chaffee. As shown in Figs. 3 and 5, Chaffee discloses an inflatable body 28, a socket 26 built in the body 28, an electric pump 100, and a connector for providing electrical power to the pump 100. The pump 100 includes a pump body 1, which is connected to and partially located in the socket 26 by virtue of "a mechanical interlock."¹⁴

10. The '469 patent claims 14 and 16 are obvious in light of Wang and Price. As shown in Figs. 2A-B (prior art), 3-4, and 6-11, Wang discloses a series of embodiments that include manual pumps 25, 250, 300, 500, 600, 700, 800, 900 that are "built in" inflatable bodies 20, 301, 501, 601, 701, 801. Price (Figs. 26-27) teaches an electric pump 26 that is built in an inflatable body 300. The level of ordinary skill in the art includes persons with basic experience in and common knowledge of inflatable bodies, and manual and electric air pumps for use in inflating such bodies. For instance, the use of unobstructive pumps built in inflatable bodies and

(continued from previous page)

have been asked to give consideration to whether the scope and content of the prior art would reasonably suggest to a person of ordinary skill to combine certain references, and if in doing so, one would make the invention covered by the patent claim. *See, e.g.,* Ex. A, Model Patent Jury Instructions, SG028 ALI-ABA 287 (2001) at 3.3.1-3, 10.1, 10.6.2-10.9.5; ABA Model Jury Instructions (2005) at 3.2, 9.3, 9.5-9.8.

¹³ The socket 305 is built in the wall of the inflatable body 301 and has a conical shape, which fits and seals against a portion of the pump body that is partially located in the socket 305.

¹⁴ Chaffee Patent at col. 6, ll. 55-65. The pump body includes projecting tabs 22 that extend within the socket 26. The socket 26 includes an "outer rim 24" formed by mating projections 22 that extend along an inward, radial direction to engage the projecting tabs 20 of the pump body. An airtight seal is formed between portions (i.e., the projecting tabs 20) of the electric pump 100, which includes the pump body, and portions (i.e., the mating projections 22) of the socket 26. *See id.* at col. 6, ll. 59-60 (describing connection as being "airtight").

the interchangeability of a built in manual pump for a built in electric pump are within the level of ordinary skill in the art. From the perspective of one of ordinary skill in the art, it would have been obvious to interchange the manual pump taught by Wang with the electric pump 26 taught by Price. A person of ordinary skill in the art at the time of the alleged invention also would have been motivated to interchange the manual pump of Wang with the electrical pump of Price to improve the ability to inflate and deflate an inflatable body without the use of an obstructive exterior pump. Wang in view of Price thus render the '469 patent claims 14 and 16 invalid.

11. The '469 patent claims 14 and 16 are invalid as being inherently anticipated by Jones. Figs. 1-2 of Jones illustrate an inflatable body 16, a socket 26 (i.e., "internal locating rims") built in the body 16, an electric pump 12 having a pump body,¹⁵ and a power source.¹⁶

12. The '469 patent claims 14 and 16 are anticipated by Price—if the Court were to adopt TWW's proposed construction of the term "socket."¹⁷ Figs. 1 and 26-27 of Price show each of the claim elements, including an inflatable body 300, and an opening 50 that holds a built in electric pump 26.¹⁸ Price would therefore invalidate these claims if TWW's proposed claim construction were adopted.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Dated: February 16, 2007


John F. Berninger

¹⁵ The pump body, which is formed by casing portions 28, 30 and flange 36, surrounds the pump components, such as the rotor 13. The flange 36 of the pump body is partially located in the socket 26.

¹⁶ Although an electrical connector is not illustrated, one of ordinary skill would understand that such connector must be necessarily present to supply power to the pump 12.

¹⁷ As discussed above, TWW seeks to construe the term "socket" to refer to "an opening or hollow that forms a holder for something."

¹⁸ The electric pump 26 includes a pump body, an air outlet, and an electrical connector 36.

EXHIBIT A: MODEL PATENT JURY INSTRUCTIONS

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SG028 ALI-ABA 387
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Chicago

***387 DRAFT MODEL PATENT JURY INSTRUCTIONS FOR THE FEDERAL CIRCUIT**

Federal Circuit Bar Association Committee

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Denise L. Loring

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are calculated [and/or] how a reasonable royalty is decided on.] Plaintiff must prove by the more probable than not standard the damages it has suffered as a result of [defendant's] infringement.

***403 3.1.4 WILLFUL INFRINGEMENT**

[Plaintiff] claims that [defendant] has knowingly and willfully infringed the ___ patent claims. To prove willful infringement, [plaintiff] must prove that [defendant] knew of the ___ patent and that [defendant] did not have a reasonable belief either that the patent was invalid [or unenforceable], or that it did not infringe the patent.

[Plaintiff's] willful infringement claim requires a higher burden of proof -- the highly probable standard -- than [plaintiff's] other claims, which require proof by the more probable than not standard. I will explain in more detail at the end of the case how you decide willful infringement.

***404 3.2 [DEFENDANT'S] CONTENTIONS**

I will now instruct you on [defendant's] contentions:

3.2.1 INVALIDITY

[Defendant] contends that claims ___ of the ___ patent are invalid for a number of reasons. Although the ___ patent was granted by the Patent and Trademark Office, it is your job to determine whether or not the legal requirements of patentability were met; that is, it is your job to determine whether or not the ___ patent is invalid.

I will now explain to you briefly the legal requirements for each of the grounds on which [defendant] relies to contend that the ___ patent claims are invalid. I will provide more details for each ground in my final instructions.

***405 3.2.2 ANTICIPATION**

[Defendant] contends that the invention covered by claims ___ of the ___ patent is not new. An invention that is not new is said to be "anticipated" by the prior art. In order to prove that a claim is anticipated by the prior art, [defendant] must prove that it is highly probable that each and every limitation of the claim is present in a single item of prior art.

***406 3.2.3 OBVIOUSNESS**

[Defendant] contends that claims ___ of the ___ patent are invalid for obviousness. A patent claim will be invalid, even if it is not anticipated by the prior art, if the claimed invention would have been obvious to a person of ordinary skill in the art at the time the invention was made. The ordinary skilled person is a person of average education and training in the field and is presumed to be aware of all of the relevant prior art. You will hear evidence about the skill and experience of such a skilled person during the course of the trial.

In order to prove invalidity based on obviousness, [defendant] must prove that it is highly probable that the invention claimed in the ___ patent would have been obvious to a person of ordinary skill in the art at the time the invention was made.

***407 3.2.4 WRITTEN DESCRIPTION/CLAIMING REQUIREMENTS**

[Defendant] contends that claims ___ of the ___ patent are invalid because the patent does not contain [a written description of the invention/an enabling description of the invention/a description of the best mode of the invention/definite claims].

[Use only the paragraphs 1-4 that are at issue:]

that [defendant] had a good faith belief that it did not infringe or that the patent was invalid, and that [defendant's] belief was reasonable under all of the circumstances.

AUTHORITIES

35 U.S.C. § 284 (2000); WMS Gaming Inc. v. Int'l Game Tech., 184 F.3d 1339, 1354 (Fed. Cir. 1999); Georgia-Pacific Corp. v. United States Gypsum Co., 195 F.3d 1322, 1334 (Fed. Cir. 1999); John's Hopkins University v. Cellpro, 152 F.3d 1342, 1363 (Fed. Cir. 1998); Comark Comm., Inc. v. Harris Corp., 156 F.3d 1182, 1191 (Fed. Cir. 1998); SRI Int'l, Inc. v. Advanced Tech. Labs., 127 F.3d 1462, 1465 (Fed. Cir. 1997); Critikon, Inc. v. Becton Dickinson Vascular Access, Inc., 120 F.3d 1253, 1259-60 (Fed. Cir. 1997); Nat'l Presto Indus. v. West Bend Co., 76 F.3d 1185, 1192-93 (Fed. Cir. 1996); Stryker Corp. v. Intermedics Orthopedics Inc., 96 F.3d 1409, 1414 (Fed. Cir. 1996); Amsted Indus. Inc. v. Buckeye Steel Castings Co., 24 F.3d 178, 180 (Fed. Cir. 1994); Westvaco Corp. v. Int'l Paper Co., 991 F.2d 735, 745 (Fed. Cir. 1993); Ortho Pharmaceutical Corp. v. Smith, 959 F.2d 936, 944 (Fed. Cir. 1992); Read Corp. v. Portec, Inc., 970 F.2d 816, 826 (Fed. Cir. 1992); Studiengesellschaft Kohle v. Dart Indus., Inc., 862 F.2d 1564, 1579 (Fed. Cir. 1988).

*443 10. VALIDITY

10.1 VALIDITY IN GENERAL

Only a valid patent may be infringed. For a patent to be valid, the invention claimed in the patent must be new, useful and non-obvious. A patent cannot take away from people their right to use what was known or what would have been obvious when the invention was made. The terms "new", "useful" and "non-obvious" have special meanings under the patent laws. I will explain these terms to you as we discuss defendants' grounds for asserting invalidity.

The invention claimed in a patent must also be adequately described. In return for the right to exclude others from making, using, selling or offering for sale the claimed invention, the patent owner must provide the public with a complete description in the patent of the invention and how to make and use it.

[Defendant] has challenged the validity of the ____ patent claims on a number of grounds. [Defendant] must prove a patent claim is invalid by the highly probable standard.

I will now explain to you each of [defendant's] grounds for invalidity in detail. In making your determination as to invalidity, you should consider each claim separately.

NOTE

Patents are entitled to a presumption of validity. The presumption of validity, like all legal presumptions, is a procedural device. It "imposes on the party against whom it is directed the burden of going forward with evidence to rebut or meet the presumption...." F. R. Evid. 301; DMI, Inc. v. Deere & Co., 802 F.2d 421, 427 (Fed. Cir. 1986). As the Court of Appeals for the Federal Circuit has recognized, "[t]he presumption is one of law, not fact, and does not constitute 'evidence' to be weighed against a challenger's evidence...." Avia Group Int'l, Inc. v. L.A. Gear California, 853 F.2d 1557, 1562 (Fed. Cir. 1988).

In light of the procedural role of the presumption of validity, instructing the jury on the presumption in addition to informing it of the clear and convincing burden of proof may cause jury confusion as to its role in deciding invalidity. This instruction, therefore, omits any reference to the presumption of validity.

*444 10.2 WRITTEN DESCRIPTION

A patent must contain a written description of the [product or process] claimed in the patent. In order to satisfy the written description requirement the patent must describe each and every limitation of a patent claim, although

***452 10.6.2 PRIOR ART -- PRIOR KNOWLEDGE OR USE BY ANOTHER IN THE UNITED STATES**

Knowledge or use in the United States of a patented invention can be prior art to the patent claims. The knowledge or use will be prior art if it meets the following requirements:

First, the knowledge or use must be by someone other than the inventor.

Second, the knowledge or use must be before the inventor's date of invention.

Third, the knowledge or use must be in the United States. Prior knowledge or use outside the United States cannot be relied upon to invalidate a patent claim.

Fourth, the knowledge or use must have been public. Private or secret knowledge or use by someone other than the inventor is not prior art.

In this case, [defendant] relies on _____ as a prior public knowledge or use before the date of invention of the _____ patent.

[NOTE: Use this instruction only when prior public use more than one year before the application filing date under 35 U.S.C. § 102(b) is not at issue in the case.]

AUTHORITIES

Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1370 (Fed. Cir. 1998); Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1570 (Fed. Cir. 1997); Lamb-Weston, Inc. v. McCain Foods, Ltd., 78 F.3d 540, 544 (Fed. Cir. 1996).

***453 10.6.3 PRIOR ART -- PUBLIC USE MORE THAN ONE YEAR BEFORE THE APPLICATION WAS FILED**

The use of a product or process of a patent claim more than one year before the filing date of the application for the patent may be prior art to the patent claim.

First, the use must occur more than one year before the patent application was filed. In this case, that date is _____. The date of invention for the patent claims is irrelevant to this category of prior art. If the public use is more than one year before the patent application was filed, then that public use may be prior art, regardless of the date of invention.

Second, the use may be by anyone, whether the inventor, the patent owner, or anyone else.

Third, if the use was by someone other than the inventor, the use must have been public.

Fourth, a use more than one year before the application filing date by the inventor or the patent owner will be prior art if it was for commercial purposes, even if done in secret.

In this case, [defendant] relies on _____ as a public use more than one year before the filing date of the application for the _____ patent.

[NOTE: Use this instruction only when prior knowledge or use under 35 U.S.C. § 102(a) is not at issue in the case.]

AUTHORITIES

Mitsubishi Electric Corp. v. Ampex Corp., 190 F. 3d 1300, 1303-05 (Fed. Cir. 1999); Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1370 (Fed. Cir. 1998); Evans Cooling Sys., Inc. v. Gen. Motors Corp., 125 F.3d 1448, 1452-54 (Fed. Cir. 1997); Lough v. Brunswick Corp., 103 F.3d 1517 (Fed. Cir. 1997); Lough v. Brunswick Corp., 86 F.3d 1113, 1119 (Fed. Cir. 1996); Baxter Int'l, Inc. v. Cobe Labs., Inc., 88 F.3d 1054, 1058-60 (Fed. Cir. 1996).

***454 10.6.4 PRIOR ART -- PRIOR PUBLIC USE OR KNOWLEDGE**

The prior public use of a claimed invention may be prior art to the patent claims under two different circumstances. The first is where the invention was known to or used by someone other than the inventor before the date of invention of the inventor on the patent. The second is where the invention was publicly used by the inventor, the patent owner, or anyone else more than one year before the application for the patent was filed.

In both circumstances, the public use must have been in the United States. Prior public use or knowledge of the claimed invention outside the United States is not prior art to a patent claim.

Use or knowledge by someone other than the inventor may be prior art if it was before the date of invention of the inventor on the patent or more than one year before the filing of the application for the patent. In either case, a prior use by someone other than the inventor or the patent owner will not be prior art unless it was public. Private or secret knowledge or use by another is not prior art.

If the prior use was more than one year before the filing date of the application for the patent, then the date of invention for the patent claims is irrelevant. A public use more than one year before the patent application was filed may be prior art regardless of the date of invention.

A prior use more than one year before the application filing date by the inventor or the patent owner will be prior art if it was for commercial purposes, even if it was done in secret.

In this case [defendant] relies on _____ as a prior public use or knowledge before the inventor's date of invention, and [defendant] relies on _____ as a prior public use more than one year before the filing date of the application for the _____ patent.

[NOTE: Use this instruction instead of instructions 10.6.2. and 10.6.3 when both prior knowledge or use under 35 U.S.C. § 102(a) and § 102(b) are at issue in the case.]

AUTHORITIES

Woodland Trust v. Flowertree Nursery, Inc., 148 F.3d 1368, 1370 (Fed. Cir. 1998); Lockwood v. Am. Airlines, Inc., 107 F.3d 1565, 1570 (Fed. Cir. 1997).

***455 10.6.5 PRIOR ART -- ON-SALE OR OFFERED FOR SALE MORE THAN ONE YEAR BEFORE THE APPLICATION WAS FILED**

The sale or offer for sale in the United States of a product may be prior art to a patent claim covering the product or a method of making the product if the product was sold or offered for sale more than one year before the application for the patent was filed. In this case, that date is _____. The date of invention for the patent claims is irrelevant to this category of prior art. If the sale or offer for sale of a product is more than one year before the patent application was filed, then the product or method of making it may be prior art, regardless of the date of invention.

If the sale or offer for sale was of a patented product, then it may be prior art regardless of who made the offer.

If the sale or offer for sale was of a product made by a patented process and if the sale or offer for sale is by the

***458 10.6.7 PRIOR ART -- PRIOR PRINTED PUBLICATION**

Printed publications from anywhere in the world are prior art if the printed publications were published either before the inventor made the claimed invention, or more than one year before the application for the patent was filed.

A document is a printed publication if it was reasonably accessible to that portion of the public most likely to use it. It is not necessary that the publication be available to every member of the public. Thus, publications may include not only such things as books, periodicals, or newspapers, they may also include publications that are not as widely available to the public, such as trade catalogues, journal articles, or scholarly papers that are distributed or available to those skilled in the art.

The date that a printed publication becomes prior art is the date that it becomes available to the public. Published patent applications are printed publications as of their publication dates.

If a printed publication was published more than one year before the application for the patent was filed, then that publication will be prior art, regardless of the date of invention for the patent claims. The date of invention is irrelevant to this category of prior art.

In this case, [defendant] relies on _____ as a prior art printed publication to the _____ patent claims.

AUTHORITIES

Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1576 (Fed. Cir. 1996); N. Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 936-37 (Fed. Cir. 1990); In re Cronyn, 890 F.2d 1158, 1159-61 (Fed. Cir. 1989); Constant v. Advanced Micro-Devices, Inc., 848 F.2d 1560, 1568-69 (Fed. Cir. 1988); In re Hall, 781 F.2d 897, 899 (Fed. Cir. 1986); Mass. Inst. of Tech. v. AB Fortia, 774 F.2d 1104, 1108-09 (Fed. Cir. 1985); In re Wyer, 655 F.2d 221, 225 (C.C.P.A. 1981).

***459 10.6.8 PRIOR ART -- PRIOR INVENTION**

An invention made by another person before the inventor on the patent made the invention is prior art to the patent claim, unless that other person abandoned, suppressed, or concealed his or her invention.

As a general rule, the first person to reduce an invention to practice is said to be the first inventor. An invention is reduced to practice either when a patent application is filed or when the invention is made and shown to work for its intended purpose. Thus, if another person reduces to practice an invention before the inventor on the patent, then the reduction to practice by the other person will be prior art to the patent claims.

Let's consider an example. Mr. Smith has a patent on a table. He reduced his table to practice on April 1. Ms. Jones invents the same table. She built her table on March 1, one month before Mr. Smith reduced his table to practice. Ms. Jones' invention of the table is prior art to Mr. Smith's patent claims because Ms. Jones reduced her table to practice one month before Mr. Smith's reduction to practice.

[Include the following only if it is an issue in the case:]

There is, however, an important exception to this general rule. Someone who was first to conceive of an invention but reduced it to practice after someone else will be the first inventor if he or she was the first to conceive of the invention and he or she exercised "reasonable diligence" in reducing the invention to practice from a time just before the other person's conception. Conception of an invention occurs when the inventor has formed the idea of how to make and use every aspect of the patented invention, and all that is required is that it be made, without the need for any further inventive effort. Reasonable diligence means that the inventor worked

continuously on reducing the invention to practice. Interruptions necessitated by the everyday problems and obligations of the inventor or those working with him or her do not prevent a finding of diligence.

Let's change our example slightly. Mr. Smith conceived of his table on February 1 and reduced it to practice on April 1. Ms. Jones conceived of the table on January 1, one month before Mr. Smith's conception, and built it on May 1, one month after Mr. Smith's reduction to practice. If Ms. Jones was reasonably diligent in building the table between the time just before Mr. Smith's February 1 conception up to the time that she built the table on May 1, she is the first inventor of the table and her invention is prior art to Mr. Smith's patent claims.

The final requirement for a prior invention to be prior art is that the prior inventor did not abandon, suppress or conceal his or her invention. Generally, an invention was not abandoned, suppressed or concealed if the invention was made public, sold or offered for sale, or otherwise used for a commercial purpose. The filing of a patent application that discloses the invention is evidence that the invention was not abandoned, suppressed or concealed.

*460 In this case, [defendant] contends that _____ was a prior invention to the _____ patent claims.

AUTHORITIES

Mycogen Plant Science, Inc. v. Monsanto Co., 243 F.3d 1316, 1330 (Fed. Cir. 2001); Singh v. Brake, 222 F.3d 1362, 1366-70 (Fed. Cir. 2000); Genentech Inc. v. Chiron Corp., 220 F.3d 1345, 1351 (Fed. Cir. 2000); Bruning v. Hirose, 161 F.3d 681, 684-85 (Fed. Cir. 1998); Cooper v. Goldfarb, 154 F.3d 1321, 1326-31 (Fed. Cir. 1998); Hyatt v. Boone, 146 F.3d 1348, 1352-55 (Fed. Cir. 1998); Estee Lauder Inc. v. L'Oreal, S.A., 129 F.3d 588, 593 (Fed. Cir. 1997); Mahurkar v. C.R. Bard, Inc., 79 F.3d 1572, 1577-79 (Fed. Cir. 1996); Checkpoint Sys. v. The United States Int'l Trade Comm'n, 54 F.3d 756, 761-63 (Fed. Cir. 1995); Innovative Scuba Concepts, Inc. v. Feder Indus., Inc., 26 F.3d 1112, 1115-16 (Fed. Cir. 1994); Griffith v. Kanamaru, 816 F.2d 624, 626 (Fed. Cir. 1987); Bey v. Kollonitsch, 806 F.2d 1024, 1026 (Fed. Cir. 1986); Dunlop Holdings Ltd. v. Ram Golf Corp., 524 F.2d 33, 34 (7th Cir. 1975); Palmer v. Dudzik, 481 F.2d 1377, 1385-87 (C.C.P.A. 1973).

*461 10.6.9 PRIOR ART -- PRIOR PATENTS AND PATENT APPLICATIONS

An issued patent may be prior art to a patent claim under a number of different circumstances. First, a patent issued anywhere in the world, like a printed publication, may be prior art to a patent claim if the patent issued either before the inventor made the claimed invention, or more than one year before the application for the patent was filed.

If a patent issued anywhere in the world more than one year before the application for the patent was filed, then that publication may be prior art, regardless of the date of invention for the claimed invention. The date of invention is irrelevant to this category of prior art.

A U.S. patent or published U.S. patent application may be prior art to a patent claim even if the patent issued or the patent application was published after the date of invention of a claimed invention. This occurs when the patent application for the U.S. patent was filed by another person before the inventor made the claimed invention.

In this case, [defendant] relies on _____ as a prior art [patent/patent application] to the _____ patent claims.

AUTHORITIES

35 U.S.C. § 102(a), (b), and (e) (1984); Lamb-Weston, Inc. v. McCain Foods, Ltd., 78 F.3d 540, 545 (Fed. Cir. 1996); In re Chu, 66 F.3d 292, 296-97 (Fed. Cir. 1995); In re Robertson, 169 F.3d 743, 745 (Fed. Cir. 1999); Baxter Int'l, Inc. v. Cobe Labs., Inc., 88 F.3d 1054, 1062 (Fed. Cir. 1996); In re Bartfeld, 925 F.2d 1450, 1452 (Fed. Cir. 1991).

*462 10.7 DERIVATION

The patent laws require that the inventor on a patent be the true inventor of the invention covered by the patent claims. An inventor on a patent is not the true inventor if he "derived" the invention from someone else. An invention is said to be "derived" from another person if that other person conceived of the patented invention and communicated that conception to the inventor named in the patent. Conception of an invention occurs when the inventor has formed the idea of how to make and use every aspect of the patented invention, and all that is required is that it be made, without the need for further inventive effort. Derivation may be of the invention itself or of an obvious variation of the invention.

If an inventor derived the patented invention from someone else, then the patent claims covering the invention are invalid.

In this case, [defendant] contends that claims ____ of the ____ patent are invalid because the inventor on the ____ patent derived the invention of those claims from _____. If you find that [defendant] has proved that it is highly probable that the inventor on the ____ patent derived the invention covered by claims ____, then you must find that the claims are invalid.

AUTHORITIES

Pannu v. Iolab Corp., 155 F.3d 1344, 1349 (Fed. Cir. 1998); Gambro Lundia AB v. Baxter Healthcare Corp., 110 F.3d 1573, 1576-78 (Fed. Cir. 1997); Oddzon Prods., Inc. v. Just Toys, Inc., 122 F.3d 1396, 1401 (Fed. Cir. 1997); Lamb-Weston, Inc. v. McCain Foods, Ltd., 78 F.3d 540, 544 (Fed. Cir. 1996); Price v. Symsek, 988 F.2d 1187, 1190 (Fed. Cir. 1993).

*463 10.8 ANTICIPATION/LACK OF NOVELTY

A person cannot obtain a patent on an invention if someone else has already made the same invention. In other words, the invention must be new. If it is not new, we say that it was "anticipated" by the prior art. An invention that is "anticipated" by the prior art is not entitled to patent protection. A party challenging the validity of a patent must prove anticipation by the highly probable standard.

In order for a patent claim to be anticipated by the prior art, each and every limitation of the claim must be present within a single item of prior art, whether that prior art is a publication, a prior patent, a prior invention, a prior public use or sale, or some other item of prior art. You may not find that the prior art anticipates a patent claim by combining two or more items of prior art.

A printed publication or patent will not be an anticipation unless it contains a description of the invention covered by the patent claims that is sufficiently detailed that it teaches a skilled person how to make and use the invention without undue experimentation. That means that a person skilled in the field of the invention reading the printed publication or patent would be able to make and use the invention using only an amount of experimentation that is appropriate for the complexity of the field of the invention and for the level of expertise and knowledge of persons skilled in that field.

In deciding whether or not a single item of prior art anticipates a patent claim, you should consider that which is expressly stated or present in the item of prior art, and also that which is inherently present. Something is inherent in an item of prior art if it is always present in the prior art or always results from the practice of the prior art and if a skilled person would understand that to be the case.

A prior public use by another may anticipate a patent claim even if the use was accidental or was not appreciated by the other person. Thus, a prior public use may anticipate an invention even if the user did not intend to use the invention, or even realize he or she had done so.

In this case, defendant contends that claims ____ of the ____ patent are invalid because they are anticipated by _____. If you find that [defendant] has proved that it is highly probable that claims ____ are anticipated, then you must find that the claims are invalid.

AUTHORITIES

Ecolochem, Inc. v. S. Cal. Edison Co., 227 F.3d 1361, 1367-70 (Fed. Cir. 2000); Atlas Powder Co. v. IRECO Inc., 190 F.3d 1342, 1346 (Fed. Cir. 1999); Abbot Labs. v. Geneva Pharms., Inc., 182 F.3d 1315, 1318 (Fed. Cir. 1999); Finnegan Corp. v. Int'l Trade Comm'n, 180 F.3d 1354, 1364 (Fed. Cir. 1999); C.R. Bard, Inc. v. M3 Sys., Inc., 157 F.3d 1340, 1349 (Fed. Cir. 1998); W.L. Gore & Assocs., Inc. v. Garlock, Inc., 721 F.2d 1540, 1548 (Fed. Cir. 1983).

*464 10.9 OBVIOUSNESS

As I mentioned earlier, an inventor is not entitled to a patent if his or her invention would have been obvious to a person of ordinary skill in the art at the time the invention was made.

Unlike anticipation, obviousness may be shown by considering more than one item of prior art. The question is, would it have been obvious for a skilled person who knew of the prior art to make the claimed invention? If the answer to that question is yes, then the patent claims are invalid. [Defendant] has the burden of proving by the highly probable standard that claims ____ of the ____ patent are invalid for obviousness.

Obviousness is determined from the perspective of a person of ordinary skill in the field to which the patent relates. The issue is not whether the claimed invention would have been obvious to you, to me as a judge, or to a genius in the art. Rather, the question is whether or not the invention would have been obvious to a person of ordinary skill in the art.

In deciding obviousness, you must avoid using hindsight; that is, you should not consider what is known today or what was learned from the teachings of the patent. You should not use the patent as a road map for selecting and combining items of prior art. You must put yourself in the place of a person of ordinary skill at the time the invention was made.

You must also keep in mind that the test for obviousness is not whether or not it would have been obvious to try to make the invention, but rather whether or not the invention would have been obvious to a person of ordinary skill in the inventor's field at the time the invention was made.

In determining whether or not these claims would have been obvious, you should make the following determinations:

First, what is the scope and content of the prior art?

Second, what differences, if any, are there between the invention of the claims of the patent and the prior art?

Third, what was the level of ordinary skill in the art at the time the invention was made?

Fourth, are there any objective indications of non-obviousness?

Against this background, you must decide whether or not the invention covered by the ____ patent claims would have been obvious.

I will now describe these specific determinations you must make in deciding whether or not the claimed invention would have been obvious.

***465 AUTHORITIES**

Graham v. John Deere Co., 383 U.S. 1, 27-28 (1966); Ruiz v. A.B. Chance Co., 234 F.3d 654, 662-68 (Fed. Cir. 2000); Yamanouchi Pharm. Co. v. Danbury Pharmacal, Inc., 231 F.3d 1339, 1343-45 (Fed. Cir. 2000); Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1124-31 (Fed. Cir. 2000); Ecolocem, Inc. v. S. Cal. Edison Co., 227 F.3d 1361, 1371-81 (Fed. Cir. 2000); In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 998-1000 (Fed. Cir. 1999); In re Rouffet, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998); In re Deuel, 51 F.3d 1552, 1557-60 (Fed. Cir. 1995); Orthokinetics, Inc. v. Safety Travel Chairs, Inc., 806 F.2d 1565, 1574-75 (Fed. Cir. 1986).

***466 10.9.1 THE SCOPE AND CONTENT OF THE PRIOR ART**

Determining the scope and content of the prior art means that you should determine what is disclosed in the prior art relied on by [defendant]. You must decide whether this prior art was reasonably relevant to the particular problem the inventor faced in making the invention covered by the patent claims. Such relevant prior art includes prior art in the field of the invention, and also prior art from other fields that a person of ordinary skill would look to when attempting to solve the problem.

AUTHORITIES

Graham v. John Deere Co., 383 U.S. 1, 27-28 (1966); Ruiz v. A.B. Chance Co., 234 F.3d 654, 664-65 (Fed. Cir. 2000); In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000); SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp., 225 F.3d 1349, 1356-57 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 999-1000 (Fed. Cir. 1999); In re Rouffet, 149 F.3d 1350, 1355-56 (Fed. Cir. 1998); Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 881-83 (Fed. Cir. 1998); Wang Lab. v. Toshiba Corp., 993 F.2d 858, 863 (Fed. Cir. 1993); Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 716-17 (Fed. Cir. 1991).

***467 10.9.2 DIFFERENCES BETWEEN THE INVENTION OF THE CLAIMS AND THE PRIOR ART**

In determining the differences between the invention covered by the patent claims and the prior art, you should not look at the individual differences in isolation. You must consider the claimed invention as a whole, and determine whether or not it would have been obvious in light of all of the prior art.

In deciding whether to combine what is described in various items of prior art, you should keep in mind that there must be some motivation or suggestion for a skilled person to make the combination covered by the patent claims. You should also consider whether or not the prior art "teaches away" from the invention covered by the patent claims. The question to be answered is: Would someone reading the prior art be discouraged from following the path taken by the inventor?

AUTHORITIES

Graham v. John Deere Co., 383 U.S. 1, 27-28 (1966); Ruiz v. A.B. Chance Co., 234 F.3d 654, 664-65 (Fed. Cir. 2000); Yamanouchi Pharm. Co. v. Danbury Pharmacal, Inc., 231 F.3d 1339, 1343-45 (Fed. Cir. 2000); Ecolocem, Inc. v. S. Cal. Edison Co., 227 F.3d 1361, 1371-81 (Fed. Cir. 2000); In re Kotzab, 217 F.3d 1365, 1369 (Fed. Cir. 2000); Winner Int'l Royalty Corp. v. Wang, 202 F.3d 1340, 1349 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 998-1000 (Fed. Cir. 1999); Monarch Knitting Mach. Corp. v. Sulzer Morat GmbH, 139 F.3d 877, 881-83 (Fed. Cir. 1998); Nyko Manufacturing Co. v. Nu-Star, 950 F.2d 714, 717 (Fed. Cir. 1991).

***468 10.9.3 LEVEL OF ORDINARY SKILL**

Obviousness is determined from the perspective of a person of ordinary skill in the art. This person is presumed to know all of the prior art, not just what the inventor may have known. When faced with a problem, this ordinary

skilled person is able to apply his or her experience and ability to the problem and also to look to any available prior art to help in solving the problem.

Factors to consider in determining the level of ordinary skill in the art include the educational level and experience of people working in the field, the types of problems faced by workers in the art and the solutions found to those problems, and the sophistication of the technology in the field.

AUTHORITIES

Graham v. John Deere Co., 383 U.S. 1, 27-28 (1966); Ruiz v. A.B. Chance Co., 234 F.3d 654, 666-67 (Fed. Cir. 2000); Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1125 (Fed. Cir. 2000); SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp., 225 F.3d 1349, 1356-57 (Fed. Cir. 2000); In re Dembiczak, 175 F.3d 994, 998-99 (Fed. Cir. 1999); Al-Site Corp. v. VSI Int'l, Inc., 174 F.3d 1308, 1323-25 (Fed. Cir. 1999); In re Dance, 160 F.3d 1339, 1343 (Fed. Cir. 1998); Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 718-19 (Fed. Cir. 1991).

***469 10.9.4 OBJECTIVE INDICATIONS CONCERNING OBVIOUSNESS**

You also must consider what are referred to as objective indications of non-obviousness. Some of these indications of non-obviousness are:

1. Commercial success of products covered by the patent claims or made by a process covered by the patent claims.
2. A long-felt need for the invention.
3. Failed attempts by others to make the invention.
4. Copying of the invention by others in the field.
5. Unexpected results achieved by the invention.
6. Praise of the invention by the infringer or others in the field.
7. The taking of licenses under the patent by others.
8. Expressions of surprise by experts and those skilled in the art at the making of the invention.
9. The patentee proceeded contrary to accepted wisdom of prior art.

The presence of any of these objective indications may suggest that the invention was not obvious. These objective indications are only relevant to obviousness if there is a connection, or nexus, between them and the invention covered by the patent claims. For example, commercial success is relevant to obviousness only if the success of the product is related to a feature of the patent claims. If the commercial success is the result of something else, such as innovative marketing, and not to a patented feature, then you should not consider it to be an indication of non-obviousness.

AUTHORITIES

Graham v. John Deere Co., 383 U.S. 1, 27-28 (1966); Ruiz v. A.B. Chance Co., 234 F.3d 654, 667-68 (Fed. Cir. 2000); Brown & Williamson Tobacco Corp. v. Philip Morris Inc., 229 F.3d 1120, 1129-31 (Fed. Cir. 2000); SIBIA Neurosciences, Inc. v. Cadus Pharm. Corp., 225 F.3d 1349, 1356-57 (Fed. Cir. 2000); In re Dance, 160 F.3d 1339, 1343 (Fed. Cir. 1998); Ryko Mfg. Co. v. Nu-Star, Inc., 950 F.2d 714, 718-19 (Fed. Cir. 1991).

***470 10.9.5 DETERMINATION OF OBVIOUSNESS**

[Defendant] contends that the invention claimed in claims ____ of the ____ patent would have been obvious to a person of ordinary skill in the art at the time the invention was made in light of the ____ item of prior art combined with _____. If you find that [defendant] has proved obviousness by the highly probable standard, then you must find that the claims are invalid for obviousness.

***471 11. INEQUITABLE CONDUCT**

After a patent application is filed, it is assigned to an Examiner, who examines the application, and attempts to determine whether or not the application and the claims meet all of the requirements of the patent laws.

In conducting this examination, the Examiner must consider the description of the invention in the application, which may involve highly technical subject matter, and search for and consider the prior art. The Examiner has only a limited amount of time and resources available and, therefore, must rely on information provided by the applicant with respect to the technical field of the invention and the prior art.

Because the Patent and Trademark Office must rely on the patent applicant for information, applicants for patents have a duty of honesty and good faith in their dealings with the Patent and Trademark Office. Persons who have this duty include the inventor named on the patent application, persons who represent the inventor before the Patent and Trademark Office, and other persons involved in a substantial way with the application.

This duty of honesty and good faith exists from the time the application is filed and continues for the entire time that an application is pending before the Patent and Trademark Office. It requires that the applicant, the applicant's representatives and others involved in a substantial way with the application fully disclose to the Patent and Trademark Office all information of which they are aware that is material to examination of the application, including all material prior art. I will explain to you in a moment how you may determine whether or not information is material.

Intentional failure to fulfill this duty of honesty and good faith is called inequitable conduct. When inequitable conduct occurs during the course of obtaining a patent, the patent is unenforceable. This means that the patent owner may not prevent others from using the invention covered by the claims of the patent and may not collect damages for patent infringement.

[Defendant] has the burden of proving inequitable conduct by the highly probable standard. [Defendant] must prove that the inventor, the inventor's representative or someone involved in a substantial way with the application withheld or misrepresented information that was material to the examination of the ____ patent application, and that this person or persons acted with an intent to deceive or mislead the Patent Examiner.

I will now explain to you the requirements of materiality and intent. I will then explain how you should balance any materiality and intent that you find in order for you to determine whether or not there was inequitable conduct.

***472 AUTHORITIES**

37 C.F.R. § 1.56 (2000); Critikon, Inc. v. Becton Dickinson Vascular Access, Inc., 120 F.3d 1253, 1256-57 (Fed. Cir. 1997); N. Telecom, Inc. v. Datapoint Corp., 908 F.2d 931, 938-39 (Fed. Cir. 1990); Kingsdown Med. Consultants, Ltd. v. Hollister, Inc., 863 F.2d 867, 876 (Fed. Cir. 1988) (en banc); KangaROOS U.S.A., Inc. v. Caldor, Inc., 778 F.2d 1571, 1576-77 (Fed. Cir. 1985).

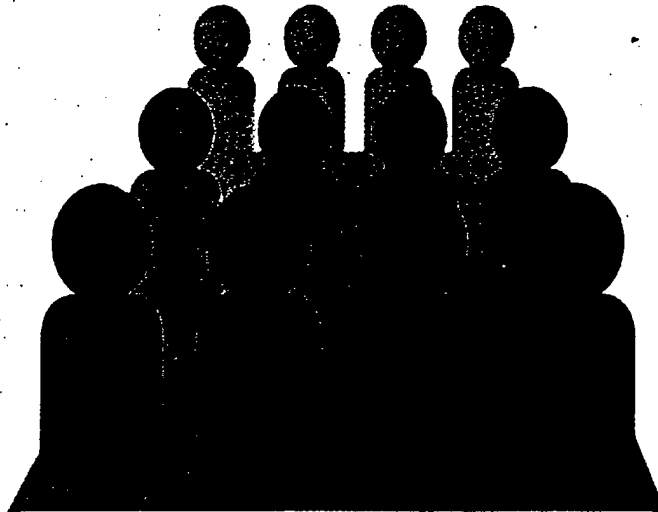
***473 11.1 MATERIALITY**



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Patent Litigation



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3.2 [Defendant's] Contentions

I will now instruct you on [defendant's] contentions.

3.2.1 Invalidity

[Defendant] contends that claims _____ of the _____ patent are invalid for a number of reasons. Although the Patent and Trademark Office issued the _____ patent, it is your job to determine whether or not the legal requirements of patentability were met; that is, it is your job to determine whether or not the _____ patent is invalid.

I will now briefly explain to you the legal requirements for each of the grounds of [defendant's] contention that the _____ patent claims are invalid. I will provide more details for each ground in my final instructions.

3.2.2 Anticipation

[Defendant] contends that the invention recited in claims _____ of the _____ patent is not new. An invention that is not new is said to be "anticipated" by the prior art. In order to prove that a claim is anticipated by the prior art, [defendant] must prove that it is highly probable that each and every limitation of the claim is present in a single item of prior art.

9.3 The Prior Art

Under the patent laws, a person is entitled to a patent only if the invention claimed in the patent is new and unobvious in light of what came before. That which came before is referred to as the "prior art."

[Defendant] is relying on various items of prior art. [Defendant] and [plaintiff] agree that the following items are prior art, and there is no dispute that these items came before the invention claimed in the _____ patent:

[List uncontested prior art]

[Defendant] is also relying on items that [plaintiff] does not agree are prior art. [Defendant] must prove by the highly probable standard that these items are prior art. In order to do so, [defendant] must prove that the items fall within one or more of the different categories of prior art recognized by the patent laws. These categories include [list only categories that apply to the items of contested prior art]:

First, anything that was publicly known or used in the United States by someone other than the inventor before the inventor made the invention.

Second, anything that was in public use or on sale in the United States more than one year before the application for the patent was filed.

Third, anything that was patented or described in a printed publication anywhere in the world before the inventor made the invention, or more than one year before the application for the patent was filed.

Fourth, anything that was invented by another person [in this country] before the inventor made the invention, if the other person did not abandon, suppress or conceal his or her prior invention.

Fifth, anything that was described in a patent that issued from a patent application filed in the United States or certain foreign countries before the inventor made the invention.

9.5 Anticipation—Introduction

A single item of prior art is said to “anticipate” a patent claim if the prior art item discloses, either expressly or inherently, all of the limitations of the claim. A prior art reference is deemed to disclose the subject matter set forth in the reference, as well as any subject matter that has been incorporated by reference. See *Ultradent Prods., Inc. v. Life-Like Cosmetics, Inc.*, 127 F.3d 1065, 1069 (Fed. Cir. 1997). Subject matter is inherently present in an item of prior art if “the disclosure is sufficient to show that the natural result flowing from the operation as taught would result in the performance of the questioned function.” *Mehl/Biophile Int’l Corp. v. Milgraum*, 192 F.3d 1362, 1365 (Fed. Cir. 1999) (quoting *In re Oelrich*, 666 F.2d 578, 581 (CCPA 1981)).

In proving that any item of prior art inherently discloses a claim limitation, recourse to extrinsic evidence is appropriate. “Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill.” *Finnigan Corp. v. United States Int’l Trade Comm’n*, 180 F.3d 1354, 1365 (Fed. Cir. 1999); *Mehl/Biophile*, 192 F.3d at 1365 (“Inherency, however, may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.”).

For certain types of prior art (e.g., patents and printed publications) to be anticipatory, the item of prior art must also be “enabling and describe the applicant’s claimed invention sufficiently to have placed it in possession of a person of ordinary skill in the field of the invention.” *In re Paulsen*, 30 F.3d 1475, 1479 (Fed. Cir. 1994). Non-enabling prior art cannot be anticipatory.

One way in which anticipation may be proved is by showing that the item of prior art infringes the patent claims. The oft-cited test states: “[t]hat which infringes if later in time anticipates if earlier.” *Lewmar Marine, Inc. v. Barient, Inc.*, 827 F.2d 744, 747–48 (Fed. Cir. 1987). The Federal Circuit has clarified

this test, however, by stating that "[a]ll infringements of a device do not 'anticipate.'" Rather, only literal infringements may be anticipations. The Court suggested that "the classic test must be modified to that which would literally infringe if later in time anticipates if earlier than the date of invention." *Id.*

9.6 Anticipation/Lack of Novelty

A person cannot obtain a patent on an invention if someone else has already made the same invention. In other words, the invention must be new. If an invention is not new, we say that it was "anticipated" by the prior art. An invention that is "anticipated" by the prior art is not entitled to patent protection. A party challenging the validity of a patent must prove anticipation by the highly probable standard.

In order for a patent claim to be anticipated by the prior art, each and every limitation of the claim must be present within a single item of prior art, whether that prior art is a publication, a prior patent, a prior invention, a prior public use or sale, or some other item of prior art. You may not find that the prior art anticipates a patent claim by combining two or more items of prior art.

[A printed publication or patent will not be an anticipation unless it contains a description of the invention covered by the patent claims that is sufficiently detailed to teach a skilled person how to make and use the invention without undue experimentation. That means that a person skilled in the field of the invention reading the printed publication or patent would be able to make and use the invention using only an amount of experimentation that is appropriate for the complexity of the field of the invention and for the level of expertise and knowledge of persons skilled in that field.]

In deciding whether or not a single item of prior art anticipates a patent claim, you should consider that which is expressly stated or present in the item of prior art, and also that which is inherently present. Something is inherent in an item of prior art if it is always present in the prior art or always results from the practice of the prior art, and if a person skilled in the field of the invention would understand that to be the case.

A prior public use by another may anticipate a patent claim, even if the use was accidental or was not appreciated by the other person. Thus, a prior public use may anticipate an in-

vention even if the user did not intend to use the invention, or even realize he or she had done so.

In this case, defendant contends that claims _____ of the _____ patent are invalid because they are anticipated by _____. If you find that [defendant] has proved that it is highly probable that claims _____ are anticipated, then you must find that the claims are invalid.

9.7 Obviousness—Introduction

In *Graham v. John Deere Co.*, 383 U.S. 1, 17–18 (1966), the Supreme Court set out the test for obviousness under 35 U.S.C. § 103. Obviousness is a question of law based on a number of factual determinations:

- (1) the scope and content of the prior art are to be determined;
- (2) differences between the prior art and the claims at issue are to be ascertained;
- (3) the level of ordinary skill in the pertinent art; and
- (4) the presence of objective indicia of non-obviousness (“secondary considerations”), such as commercial success, long-felt but unsolved needs, and failure of others to make the claimed invention.

Id. at 17–18. These *Graham* factors must always be considered when determining whether or not patent claims are invalid for obviousness. See *Ruiz v. Chance Co.*, 234 F.3d 654, 664 (Fed. Cir. 2000) (reversing the district court’s holding of invalidity under 35 U.S.C. § 103 because the court failed to make explicit findings relating to the *Graham* factors).

The first factor requires the jury to identify the prior art that is relevant to the particular problem the claimed invention purports to solve. In considering the second factor, the jury must identify the limitations of the patent claims that are present in (and absent from) each of the items of prior art.

The third *Graham* factor, the level of ordinary skill in the art, requires that the jury determine the level of skill attributable to a hypothetical person of ordinary skill in the art. This hypothetical person is presumed to be aware of all of the prior art. In determining the level of skill in the art, the jury may consider:

- (1) the types of problems encountered in the art;
- (2) prior art solutions to those problems;

-
- (3) the rapidity with which innovations are made in the art;
 - (4) the sophistication of the technology; and
 - (5) the educational level of workers in the field.

Ruiz, 234 F.3d at 666–67 (citations omitted).

The jury must determine whether or not it would have been obvious for this ordinary skilled worker to combine the prior art to come up with the invention claimed in the patent. Before it may find that the combination of prior art items would have been obvious, however, the jury must determine whether or not there was a suggestion or motivation in the prior art that would have led one of ordinary skill to make the combination. The jury may find the requisite suggestion or motivation to combine explicitly or implicitly:

- (1) in the prior art references themselves;
- (2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or
- (3) from the nature of the problem to be solved, "leading inventors to look to references relating to possible solutions to that problem."

Ruiz, 234 F.3d at 665 (citations omitted).

The Federal Circuit has emphasized the importance of the motivation-to-combine requirement in obviousness. *See, e.g., Ecolchem, Inc. v. S. Cal. Edison Co.*, 227 F.3d 1361, 1371–72 (Fed. Cir. 2000), in which the Court reversed the district court's holding of obviousness because the court had failed to identify the motivation to combine the prior art references.

The last factor, collectively known as the objective indicia of non-obviousness, or secondary considerations, requires the jury to consider any evidence showing, for example, (1) that the claimed invention has achieved commercial success; (2) an unfilled, but long-felt need in the industry for the invention; (3) that others in the industry have copied the claimed invention; (4) that others in the industry have pre-

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viously failed to solve the problem addressed by the claimed invention; and (5) that the claimed invention achieved unexpected results. The Federal Circuit has noted that this type of evidence "may often be the most probative and cogent evidence in the record." *Ruiz*, 234 F.3d at 667-68.

Although the question of obviousness or nonobviousness is ultimately a question of law, it has been a matter of routine for trial courts to permit the jury to reach the final conclusion of obviousness or nonobviousness based on its factual determinations. It may be preferred for the jury verdict form to set forth the jury's conclusions as to each of the factual determinations so that the appellate court may assess whether the jury's conclusion was based on appropriate fact findings. *See, e.g., McGinley v. Franklin Sports, Inc.*, 262 F.3d 1339, 1358 (Fed. Cir. 2001) ("The issue presented in this appeal derives from the common, if unfortunate, practice of allowing the jury to render a general verdict on the ultimate legal conclusion of obviousness without requiring express findings on the underlying factual issues through a special verdict or special interrogatories under Fed. R. Civ. P. 49.") (Michel, J., dissenting opinion).

9.8 Obviousness

As I mentioned earlier, an inventor is not entitled to a patent if his or her invention would have been obvious to a person of ordinary skill in the field of the invention at the time the invention was made.

Unlike anticipation, obviousness may be shown by considering more than one item of prior art. The question is, would it have been obvious for a skilled person who knew of the prior art to make the claimed invention? If the answer to that question is yes, then the patent claims are invalid. [Defendant] has the burden of proving by the highly probable standard that claims _____ of the _____ patent are invalid for obviousness.

Obviousness is determined from the perspective of a person of ordinary skill in the field of the invention. The issue is not whether the claimed invention would have been obvious to you, to me as a judge, or to a genius in the field of the invention. Rather, the question is whether or not the invention would have been obvious to a person of ordinary skill in the field of the invention.

In deciding obviousness, you must avoid using hindsight; that is, you should not consider what is known today or what was learned from the teachings of the patent. You should not use the patent as a road map for selecting and combining items of prior art. You must put yourself in the place of a person of ordinary skill at the time the invention was made.

In determining whether or not these claims would have been obvious, you should make the following determinations:

First, what is the scope and content of the prior art?

Second, what differences, if any, are there between the invention of the claims of the patent and the prior art?

Third, what was the level of ordinary skill in the art at the time the invention was made?

Fourth, are there any objective indications of nonobviousness?

Against this background, you must decide whether or not the invention covered by the _____ patent claims would have been obvious.

I will now describe in more detail the specific determinations you must make in deciding whether or not the claimed invention would have been obvious.

UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF COLUMBIA

INTEX RECREATION CORP., a California
Corporation,

Plaintiff,

v.

TEAM WORLDWIDE CORPORATION, a
Taiwanese Corporation,

Defendant and Counterclaim Plaintiff,

v.

INTEX RECREATION CORP., a California
Corporation,

Counterclaim Defendant.

Civ. A. No. 1:04 CV 01785 (PLF/DAR)

REBUTTAL EXPERT REPORT OF DR. STEVEN DUBOWSKY

I. Introduction

a. My name is Steven Dubowsky. I am a professor of mechanical engineering at the Massachusetts Institute of Technology. My background, qualifications and experience were described in my June 19, 2006 Expert Report and in my current CV, attached thereto as Exhibit A.

b. I have not testified in any litigation matters in the past four years, either in deposition or at trial.

c. I am being compensated at my customary consulting rate of \$300 per hour for my work in this matter.

II. Scope of Work

a. In the course of my work on this case, I have reviewed a number of documents and things. The documents and things that I reviewed prior to my June 19, 2006, Expert Report are listed in Exhibit B to that report. Any additional documents and things that I have reviewed since June 19, 2006, are listed in this report.

b. I have also been informed by counsel of certain legal principles, identified below.

c. I have been asked by counsel for the defendant, Team Worldwide Corporation, to evaluate the assertions made in the July 21, 2006, Expert Report of John F. Berninger and Mr. Berninger's July 31, 2006, Rebuttal Expert Report.

d. I have also been asked by counsel for Team Worldwide to evaluate the assertions made in plaintiff Intex Recreation Corp.'s ("IRC") July 31, 2006, Supplemental Response to Interrogatory No. 4.

III. Summary of Conclusions

a. It is my opinion that Mr. Berninger has not refuted that claim 14 of the '469 patent is valid. No single piece of prior art relied on by Mr. Berninger anticipates Claim 14 of the '469 patent. No single piece of prior art, and no combination of any of the art cited by Mr. Berninger, would have rendered claim 14 obvious.

b. It is also my opinion that IRC has not shown that any of the asserted claims of the '469 patent (claims 14-17) are invalid in its Supplemental Response to Interrogatory No. 4. No single piece of prior art relied on by IRC anticipates the asserted claims. No single piece of prior art, and no combination of any of the art cited by IRC, would have rendered the asserted claims obvious.

c. I conclude based on my study of the materials considered by Mr. Berninger in addition to the materials I have previously considered that all of the asserted claims of the '469 patent (claims 14-17) are valid.

d. Nothing in Mr. Berninger's July 31, 2006, Rebuttal Expert Report changes my opinion that claims 14-17 are infringed.

IV. Legal Principles

a. I am not an attorney and I will not offer opinions on the law. I am, however, informed of several principles concerning patent claim construction and validity which I have used in arriving at my opinions in this report.

b. Patent claims are presumed to be valid. A relatively high standard of proof, clear and convincing evidence, is required to prove that a patent claim is invalid.

c. In analyzing validity, each claim of a patent must be considered separately. Thus, for example, the validity of a dependent claim must be evaluated separately from the validity of the claims from which it depends.

d. In order for a patent claim to be invalid as anticipated, each and every element of the claim must be found expressly or inherently in a single prior art reference to the claim.

e. To show that a patent claim is obvious requires a showing that a person of ordinary skill in the art at the time the invention was made, and with no knowledge of the claimed invention, would select all of the claimed elements from the prior art and combine them in the claimed manner. It is necessary to show that there is a teaching, motivation or suggestion in the prior art to modify the prior art to arrive at the claimed invention.

f. Objective evidence of non-obviousness, such as the commercial success of the invention, is also relevant to an analysis of obviousness.

g. The burden for proving invalidity is more difficult to meet when the patent examiner considered the allegedly invalidating references during prosecution.

h. Claims are ultimately construed by the court. I understand that the claims have not yet been construed.

V. Claim Constructions Applied

a. In this report, I am applying the following constructions, which are the same constructions I applied in my June 19, 2006, Expert Report:

- i. **"Inflatable body"**: a substantially airtight structure that expands when filled with air or other gas.
- ii. **"Electric pump"**: A electrically powered machine or device for raising, compressing, or transferring fluids, including gases.
- iii. **"Pump body"**: the main part of a pump.
- iv. **"Air outlet"**: hole from which air emerges.
- v. **"Connected to"**: touching or joined.
- vi. **"Socket"**: an opening or hollow that forms a holder for something
- vii. **"Connector"** in the electrical context: something that permits passage of electrical current.
- viii. **"Received"**: positioned or oriented.
- ix. **"Tile"**: this is an obvious typographical error that should have been "the".
- x. **"Matched"**: geometric match.

b. In his July 21, 2006, Expert Report concerning validity, Mr. Berninger “strongly disagreed” with my definition of the term “socket,” but did not explain why. In his July 31, 2006, Rebuttal Expert Report concerning infringement, Mr. Berninger applied the following definition of the term “socket:” “a structure that is circular in cross-section, is adapted to permit axial displacement or reverse orientation of the pump body during normal use, is adapted to permit a seal between the pump body and its containment, and is adapted to receive an integral means of securing the pump body.” I do not agree with this definition.

c. The term “socket” used in the ‘469 patent is used in its normal and conventional sense. The definition of “socket” that I have applied is therefore the ordinary meaning of the term. The definition I have used (“an opening or hollow that forms a holder for something”) is the same as the definition in WEBSTER’S NINTH NEW COLLEGIATE DICTIONARY (1991) (“an opening or hollow that forms a holder for something <an electric bulb ~> <the eye~>.”) It is also supported by several other dictionary and patent office definitions:

i. “1. An opening or a cavity into which an inserted part is designed to fit: a light-bulb socket. ... A hollow or cavity into which a part such as an eye fits.” THE AMERICAN HERITAGE DICTIONARY OF THE ENGLISH LANGUAGE, 4TH ED. (2000).

ii. “A hollow for something to fit into, or stand firm, or revolve in. A *bayonet fitting* is a type of socket.” DICTIONARY OF MECHANICAL ENGINEERING, 4TH ED. (1996).

iii. “The U.S. Patent and Trademark Office, defines ‘socket’ as including ‘a means for making a permanent or temporary and readily-releasable

connection between a holder and an object ... where the gripping means or seat is on or within the holder or base member.” (Intex April 20, 2006 Response to TWW Interrog. No. 2.)

d. Mr. Berninger’s proposed construction of “socket” has four separate components:

- i. “circular in cross-section:” I disagree with this. A normal electrical wall socket is certainly not circular in cross-section, and this restriction is not implied by any of the dictionary and patent office definitions above. The patent also does not apply that restriction to the use of the word “socket.” The patent examiner also did not apply that restriction to the term. For example, when he discussed the Rey patent, he described a rectangular recess (item 40) as a “socket.”
- ii. “adapted to permit axial displacement or reverse orientation of the pump body during normal use:” I disagree with this as well. The patent does not apply this restriction to the use of the word “socket,” and the dependent claims make clear that this is optional. The dictionary definitions and the patent office definition also do not include this restriction. For example, a human eye socket and a shoulder socket do not permit any axial displacement during normal use. The patent office definition of socket that Intex has adopted in its interrogatory response also makes clear that it is

irrelevant whether the connection is permanent on the one hand or temporary and readily releasable on the other.

- iii. “adapted to permit a seal between the pump body and its containment:” I also disagree with this, and I find the term “containment” to be vague. The patent does not require these details for the socket. None of the above definitions refer to such a seal, and the claims make clear that a seal is optional (contrast claim 14 with claim 16). By way of example, an electric wall socket, a light bulb socket, and a cigarette lighter socket do not necessarily have seals.
- iv. “adapted to receive an integral means of securing the pump body:” I also disagree with this, and I find the term “integral means of securing the pump body” to be vague. The patent does not require the securing detail or the integral detail for the socket. The claims themselves only say that the pump body must be wholly or partially disposed in the socket, with no mention of securing or integral. None of the above definitions refer to or imply such details.

e. With respect to “electric pump,” I have applied the definition “a electrically powered machine or device for raising, compressing, or transferring fluids, including gases.” WEBSTER’S NINTH NEW COLLEGIATE DICTIONARY (1991) defines “pump” as “a device that raises, transfers, or compresses fluids or that attenuates gases esp. by suction or pressure or both.” I note that Mr. Berninger criticized my application

of this definition to IRC's accused products in his July 31, 2006, expert report as "arbitrary." (Paragraph 96.) I understand that this is the first time that Intex has disputed this application of the claim language, which was also set out in TWW's April 20, 2006, interrogatory response. If Intex is even permitted to raise this new theory, I respond as follows:

- i. Mr. Berninger says that an "electric pump" means "only the air compressor and its attached electric motor." (July 31, 2006, Rebuttal Expert Report, ¶ 97). I disagree. The claim expressly states that the purpose of the electric pump is to "pump the inflatable body;" e.g., to get air from outside to inside the inflatable body during inflation. The structure identified by Mr. Berninger is insufficient to perform this function. The structure that I have identified as the electric pumps in the infringing Intex products performs this function (Pump B products: the motor, the impeller unit, the directional airflow element, and the faceplate; Pump A products: the motor, the impeller unit, and the faceplate). Far from being an "arbitrary" selection, if any one of the components that I identified were to be removed, the device would not "pump the inflatable body."
- ii. The patent examiner also adopted a much broader construction than Mr. Berninger's definition, one consistent with my definition and application. For example, in the Feldman '882 patent considered by the examiner, the examiner concluded that the

adapter 38 is a part of the electric pump. The overall electric pump, therefore, includes at least items 2, 50, and 38 and their internal components. On Mr. Berninger's construction, he would apparently conclude that only the air impeller 12 and the electric motor 8 constitute the electric pump, contrary to the examiner's view, and my view as well.

- iii. Moreover, Mr. Berninger's construction is not meaningful in the real world. If an engineer or consumer were to purchase something described as an "electric pump" that only had an air compressor and attached electric motor (lacking a housing, air inlets and outlets, appropriate power connections, etc.), it would not meet their expectations of a useful device.
- iv. Mr. Berninger's view is also inconsistent with how Intex labels and promotes its products. For example, the cover plate on the Pump B product, which Mr. Berninger excludes from what he considers to be the "electric pump," is labeled "Electric Air Pump."

VI. Level of Ordinary Skill in the Art

a. I disagree with Mr. Berninger's view with regard to the person of ordinary skill in the art in the field of the '469 patent. The field of the '469 patent is "inflatable products," and in my view, the person of ordinary skill in this field might not have any engineering degree, but could have on the order of three to five years experience designing and manufacturing air mattress and like consumer products, including the

selection of electric motors, fans, plastic parts, and simple electrical components such as switches and wires. As a result of such experience, such a person would also be familiar with requirements for consumer products as well as competitors' products.

VII. Analysis of References Considered by Mr. Berninger

a. Mr. Berninger's first reference: U.S. Patent No. 5,503,618 to Rafeal R. Rey ("Rey").

i. Mr. Berninger asserts that Claim 14 of the '469 patent is anticipated by Rey. (Berninger July 21, 2006, Report, ¶ 27.)

ii. However, Mr. Berninger concedes that Rey does not contain each and every element of Claim 14. Specifically, he concedes at ¶ 30 that Rey does not have an "air outlet" in the electric pump, as stated in the claim. Thus, Mr. Berninger admits that the claim is not anticipated by Rey. I agree.

iii. Mr. Berninger offers no opinion that any claim of the '469 patent is obvious under Ray, alone or in combination with any other reference.

iv. Apart from the missing "air outlet" in Rey, the pump in Rey does not "pump the inflatable body." As the patent makes clear, "pumping the inflatable body" means either pumping air into the inflatable body from outside (inflation), or pumping air inside the inflatable body to the outside (deflation). The heater-pump unit 34 in Rey, identified by Mr. Berninger, is merely a circulation pump. It does not inflate or deflate the inflatable body. The examiner expressly found that the socket 40 into which the heater-pump unit is placed is not used in Rey to "pump the inflatable body." (May 3, 2004 Notice of Allowance, Examiner's Comments, at 2.) I agree. Rather, water

is added to and removed from the inflatable body through the access port 24, without the use of a pump.

v. Rey was considered by the patent examiner during the prosecution of the '469 patent. The examiner did not conclude that Rey anticipated any claims, including claim 14 (which at that time was numbered 17).

vi. Rather, in a January 13, 2004, Office Action, the examiner stated that claim 14 was obvious in view of Rey and the prior art figures provided in the patent application. (January 13, 2004 Office Action, at 2.)

vii. In response, TWW explained that "the pump 34 as taught by Rey is for heating and circulating water already contained in the hydromassage pillow. ... Water is added to the pillow through access port 24 as opposed to being pumped into the pillow by the pump 34." (April 7, 2004 Response to Office Action, at 7.) As noted above, I agree.

viii. TWW further stated that "Rey would require a substantial redesign of the elements shown and a change in the basic principle under which the construction in Applicant's prior art was designed to operate. Namely, the pump of Applicant's prior art could not operate together with opening 40 of Rey without substantial modification thereof. Furthermore, the pump 34 and opening 40 of Rey could not operate together with Applicant's prior art without substantial modification thereof." (*Id.*) I agree.

ix. The examiner was persuaded by these arguments and withdrew his rejection of claims under Rey: the arguments "have been fully considered and are persuasive." (May 3, 2004 Notice of Allowance, Examiner's Comments, at 2.) The examiner further noted "that Rey does not disclosure [*sic*] the socket 40 to be in

communication with the interior or that it can be used to 'pump the inflatable body.'"

(*Id.*) I agree with the examiner's conclusions.

b. Mr. Berninger's second reference: U.S. Patent No. 6,312,400 to Salvatore R. Gulino ("Gulino").

i. Mr. Berninger asserts that Claim 14 of the '469 patent is anticipated by Gulino. (Berninger July 21, 2006, Report, ¶ 34.)

ii. Mr. Berninger asserts that a "storage pocket" labeled 36 in Gulino's figures is "a socket built in the inflatable body." (*Id.*, ¶ 36.) I disagree. First, the patent does not disclose any of the details of the storage pocket, such as how or where it is constructed. In fact Figure 4 of Gulino shows that the storage pocket is not "built in the inflatable body," as specified in claim 14. Figure 4 clearly shows the interiors of the four inflatable bodies (i.e., the pneumatic chambers, 31a, 31b, 32a, 32b), and there is no socket built in any of them. Thus, Gulino does not disclose all features of claim 14, and so does not anticipate the claim.

iii. Claim 14 also requires that the pump be "connected to the socket to pump the inflatable body, wherein the pump body is wholly or partially located in the socket." Mr. Berninger asserts that an "air inflation device" labeled 39 in Gulino's Figure 5 meets this feature of the claim. (*Id.*, ¶ 37.) Mr. Berninger does not explain or identify anything in Gulino that discloses that the air inflation device 39 "pump[s] the inflatable body" when it is located in the storage pocket (i.e., the alleged "socket"). To the contrary, like cited Feldman '882, the air inflation device 39 has an air tube 55, the distal end 57 of which is inserted into air intake ports 33 in each of the four chambers of Gulino. There is no inflation carried out through the storage pocket 36. Thus, Gulino

also lacks this feature of the claim, and so for this additional reason does not anticipate claim 14. Gulino is if anything less relevant to the claims than the cited Feldman '882 patent.

c. Mr. Berninger's third reference: U.S. Patent No. 5,367,726 to Robert B. Chaffee ("the Chaffee '726 patent").

i. Mr. Berninger asserts that Claim 14 of the '469 patent is anticipated by the Chaffee '726 patent. (Berninger July 21, 2006, Report, ¶ 41.) However, this appears to be in error, as Mr. Berninger concedes that the Chaffee '726 patent does not disclose each and every element of Claim 14 of the '469 patent. He later states that the Chaffee '726 patent would have rendered Claim 14 obvious. (*Id.*, ¶ 46.)

ii. The Chaffee '726 patent was considered by the examiner during the prosecution of the "parent" application of the '469 patent, which issued as U.S. Patent 6,332,760 ("the '760 patent."). ('760 patent front page, "References Cited".) The application that resulted in the '469 patent was a continuation-in-part application to the application that resulted in the '760 patent. I am informed that the patent examiner is required to consider information that was of record in a parent application when examining a continuation-in-part application. (MPEP § 609(I)(A)(2) (May 2004, 8th Ed., 2nd Rev.)

iii. Moreover, the parent patent of the Chaffee '726 patent, U.S. Patent No. 5,267,363 ("the Chaffee '363 patent"), was expressly at issue during the prosecution of the '469 patent. Every portion of the Chaffee '726 patent that Mr. Berninger relies on for his analysis is found in the Chaffee '363 patent. Specifically, Figures 1, 2, 3 and 5 of the Chaffee '726 patent are found in the Chaffee '363 patent, as is all of the text Mr.

Berninger cites from columns 2, 3, and 7 of the Chaffee '726 patent. (See Chaffee '363 patent, Figs. 1, 2, 3 and 7; 1:65-3:55; 6:57-7:54.)

iv. Mr. Berninger concedes that no part of the electric pump disclosed in the Chaffee '726 patent is wholly or partially located in the dual valve assembly housing that Mr. Berninger contends is the socket. (Berninger July 21, 2006, Report, ¶ 44.) I note that, contrary to Mr. Berninger's characterization, Claim 14 requires that the *pump body* be wholly or partially located in the socket, and the pump body in Chaffee '726 is not partially or wholly located in a socket.

v. I disagree with Mr. Berninger's assertions that there is a suggestion or motivation to locate the pump body of the inflation device 20 of the Chaffee '726 patent wholly or partially in a socket. Mr. Berninger purports to find this motivation in column 7, lines 5-19 of the Chaffee '726 patent. This passage describes a mattress cover for securing conventional bedsheets to an inflatable mattress so that they do not have to be removed every time the inflatable mattress is deflated and put on again when the mattress is re-inflated. Mr. Berninger concludes from this, improperly in my view, that "this language in the patent provides motivation to have placed the pump inside of the socket to avoid having to remove and replace the pump for inflation and deflation operations, and thus repeated removal of the fitted bedsheets." (¶ 44.) Mr. Berninger's conclusion is not supported by anything in the Chaffee '726 patent. There is absolutely nothing in the quoted passage that in any way recognizes the value of locating a pump body wholly or partially within a socket built in the inflatable body, or that recognizes the desirability of such a result. The problem addressed in this passage of the Chaffee '726 patent is entirely different from the problem addressed by this aspect of the '469 patent. I

also disagree with Mr. Berninger's statement that it would be necessary to repeatedly remove the fitted bedsheets in order to inflate the mattress in the Chaffee '726 patent. To the contrary, Chaffee clearly says that there is no need to remove the sheets ("thereby eliminating the necessity for re-making the bed with each use." Col. 7, lines 11-13.)

vi. Mr. Berninger further states that "a person of ordinary skill not only would have been motivated to make such a modification, but could have readily designed such a modification. That modification would have been a deeper socket that would wholly or partially contain the electric pump." (§ 44.) Again, Mr. Berninger misstates that claim, which says that the pump *body* must be wholly or partially located in the socket. I note that Mr. Berninger offers no opinion on this issue.

vii. I also disagree with Mr. Berninger's conclusion regarding modification to Chaffee's structure. There is no part of pump in Chaffee that is inside the alleged socket. It is not obvious how the pump body depicted in Figure 2 could be located wholly or partially within the housing for the dual valve assembly 12. The dual valve assembly structure in the Chaffee '726 patent has a specific design, which would require substantial modification to accommodate the pump body. There is no indication in the Chaffee '726 patent of how this valve structure could be modified to accommodate the sizeable pump body depicted in Figure 2.

viii. My position is further supported by the comments of the examiner who when considering the Chaffee '363 patent concluded that it would not be obvious to modify the reference to create the claimed invention, and directly refuted Mr. Berninger's conclusion that the Chaffee design could be readily modified: "I informed Nelson Quintero that to modify Chaffee such that the pump body was located inside the socket

would require modification of the existing valve structure also located inside the socket. I informed Nelson Quintero that such changes would require a lot of motivation absent a template.” (Examiner Initiated Interview Summary, attached to July 30, 2003 Notice of Allowance.)

ix. I also am informed that the commercial success of products covered by a patent claim is evidence that that claim is not obvious. I have reviewed both TWW’s and IRC’s revenue figures for the products covered by the patents, as reflected in Exhibits 2 and 3 of Carla Mulhern’s report. IRC’s U.S. sales of infringing products from the period September 21, 2004 (the date the ‘469 patent issued) to February, 2006, have totaled \$25.4 million. TWW’s sales of its own products from the period 2000 through April, 2006, have been \$85.8 million. Thus, the total revenue for products covered by the patent exceeds \$110 million, which I consider to be a commercial success.

d. I note that Mr. Berninger does not opine that asserted Claims 15-17 of the ‘469 patent are invalid. I agree with Mr. Berninger that these claims are valid.

VIII. Analysis of References Cited in IRC’s Interrogatory Response

a. IRC’s first reference – U.S. Patent No. 5,794,289 to Wortman et al. (“Wortman”)

i. IRC (but apparently not Mr. Berninger) asserts that Wortman anticipates claim 14 of the ‘469 patent. IRC further asserts that claim 14 would have been obvious under Wortman in view of Swenson. IRC’s obviousness assertion is discussed below. While IRC’s claim charts also assert that certain elements of asserted claim 16 are met by Wortman, IRC does not assert that Wortman contains each and every element of claim 16, specifically, “the portion of the electric pump and the socket are matched with each other to prevent an air leakage therebetween,” and thus it does not

assert that claim 16 is anticipated by Wortman. Similarly, IRC does not assert that claim 16 (or claims 15 and 17) would have been obvious under Wortman and Swenson.

ii. IRC identifies aspects of the Wortman figures labeled 116 and 186 as the “inflatable body” of claim 14. In Wortman, 116 is a “cushion” (Wortman, 8:25) and 186 is a “button weld” (Wortman, 10:59). Clearly a button weld is not an inflatable body. IRC may have intended to identify 86, which, like 116, depicts a “cushion.”

iii. IRC identifies a “notch” labeled 99 in Wortman figure 18 as a “socket built in the inflatable body.” The notch is not “built in” the alleged inflatable body 116 or 86, as specified in claim 14. Rather, the notch is cut out of a lower corner of the foot portion of the mattress. (Wortman, 13:26-28; FIG. 18.) The mattress is not an inflatable body, and IRC seems to agree.

iv. Accordingly, Wortman does not anticipate claim 14 of the ‘469 patent.

b. IRC’s second reference – U.S. Patent No. 5,249,319 to Higgs (“Higgs”)

i. Higgs was considered by the patent examiner in examining the application for the ‘469 patent. The examiner never concluded that any claims of the patent were anticipated by or obvious under Higgs.

ii. IRC asserts that Higgs anticipates claim 14 of the ‘469 patent. IRC further asserts that claim 14 would have been obvious under Higgs in view of Swenson. IRC’s obviousness assertion is discussed below. As with Wortman, while IRC’s claim charts also assert that certain elements of asserted claim 16 are present in Higgs, it does not assert that Higgs contains each and every element of claim 16, specifically, “the portion of the electric pump and the socket are matched with each other to prevent an air

leakage therebetween,” and thus it does not assert that claim 16 is anticipated by Higgs. Similarly, IRC does not assert that claim 16 (or claims 15 and 17) would have been obvious under Higgs and Swenson.

iii. IRC identifies a mattress labeled 3 in Higgs’ figures as an inflatable body. Higgs’ mattress is not an inflatable body. It is not a substantially airtight structure that expands when filled with air or other gas. The only inflatable body in Higgs is the inflatable air chamber (labeled 28 in FIG. 3), which is located inside the mattress. Claim 14 requires “an inflatable product including an inflatable body,” meaning that an inflatable product is distinct from an inflatable body. The patent discusses an inflatable product containing an inflatable body, and thus they are not the same thing. The fact that an inflatable air chamber is disposed within the mattress does not make the mattress itself an inflatable body.

iv. IRC says that the hollow compartment labeled 22 within the mattress is “a socket built in the inflatable body.” This is incorrect. Compartment 22 is not “built in the” actual inflatable body, air chamber 28.

v. Accordingly, Higgs does not anticipate Claim 14 of the ‘469 patent.

c. IRC’s third reference – U.S. Patent No. 5,068,933 to Sexton (“Sexton”)

i. While IRC asserts that certain elements of asserted claims 14 and 16 are met by Sexton, it does not assert that every element of either claim is met by Sexton. With regard to claim 14, IRC does not say that Sexton has a “connector provided on the electric pump for connecting the external power.” As to claim 16, IRC does not say that in Sexton “the portion of the electric pump and the socket are matched with each

other to prevent an air leakage therebetween.” Thus, IRC does not assert that Sexton anticipates any asserted claim of the ‘469 patent. IRC also does not assert that Sexton renders any asserted claim of the ‘469 patent obvious.

ii. IRC asserts that an air bag labeled 11 in Sexton’s figures is the inflatable body. The alleged socket identified by IRC is a pocket labeled 19 in Sexton’s figures. Clearly this pocket 19 is not in the air bag 11, and so even on IRC’s theory Sexton lacks “a socket built in the inflatable body.”

iii. Thus, I conclude that Sexton does not anticipate any of the asserted claims.

d. IRC’s fourth reference – U.S. Patent No. 4,394,784 to Swenson et al. (“Swenson”)

i. IRC asserts that “the claims” of the ‘469 patent are unpatentable over Swenson in view of either Wortman or Higgs. IRC specifically asserts that these references, in combination, disclose the elements of claim 14 of the ‘469 patent. IRC does not assert that all of the elements of any other asserted claim are disclosed by these references, and so IRC’s obviousness argument is limited to claim 14.

ii. As IRC admits, Swenson does not disclose a socket built in an inflatable body. That is clear from figures 1, 3, and 4. The housing labeled 44 in Swenson’s figure 4, which IRC says is a “socket,” is not built into the inflatable body. IRC does not identify anything in Swenson that would suggest or motivate a person of ordinary skill to modify the design to include the socket built in the inflatable body, and in my view, there would be no such motivation at all.

iii. As discussed above, neither Higgs nor Wortman provide a socket built in an inflatable body, and IRC also does not identify anything in either document that would suggest or motivate a person of ordinary skill to do so.

iv. Accordingly Swenson, either alone or in combination with either Higgs or Wortman, would not have rendered Claim 14, or any asserted claim of the '469 patent, obvious.

Aug 28, 2006
Date

Dr. Steven Dubowsky
Dr. Steven Dubowsky